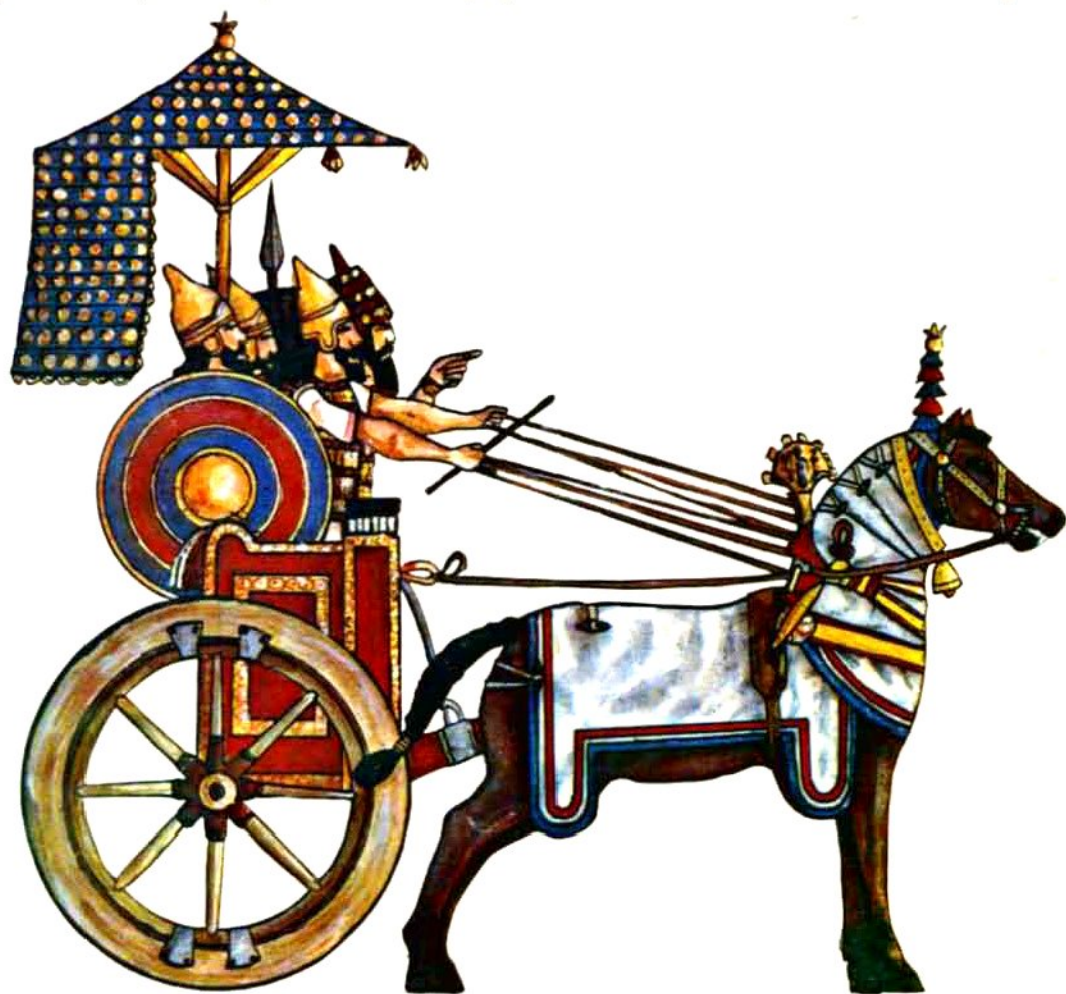


Armies of the Ancient Near East 3,000 BC to 539 BC

Organisation, tactics, dress and equipment. 210 illustrations and 9 maps



**by Nigel Stillman and
Nigel Tallis**

Egyptian Old Kingdom, Middle Kingdom, New Kingdom, Saite, Libyan, Nubian, Kushite, Sumerian, Akkadian, Eblaite, Amorite, Hammurapic Babylonian, Old Assyrian, Hurrian, Mitannian, Kassite, Middle Assyrian, Neo Assyrian, Neo Babylonian, Chaldean, Gutian, Mannaeen, Iranian, Cimmerian, Hyksos, Canaanite, Syrian, Ugaritic, Hebrew, Phillistine, Midianite Arab, Cypriot, Phoenician, Hattian, Hittite, Anatolian, Sea Peoples, Neo Hittite, Aramaean, Phrygian, Lydian, Urartian, Elamite, Minoan, Mycenaean, Harappan.

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FRONT COVER: COMMAND CHARIOT OF KING ASHURBANIPAL OF ASSYRIA 668-627 BC

The king, recognisable in his crimson crown, commands from the royal war-chariot drawn by four horses. The chariot is a rather more ornate version of the standard Assyrian war chariot of his reign, described fully, together with preceding designs, in the text. Two shield-bearers, one holding his shield in his right hand, protect the rear and sides of the commander and driver of the chariot. This was the normal arrangement of the four-man crew at this time; the final phase of Assyrian chariot development.

The colours shown are those known to have been used by the Assyrians from wall-paintings such as those found at Til-Barsip. Although weapons were now made of iron, the best quality armour was still made of bronze. The chariot horses are protected by thick, textile armour, fastened by toggles. Embossed bronze or gold fixtures decorate the chariot and harness, and a blue umbrella, studded with gold rosettes, shades the king from the sun.

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A WARGAMES RESEARCH GROUP PUBLICATION

INTRODUCTION

This book, chronologically the first in the W.R.G. series, attempts the difficult task of describing the military organisation and equipment of the many civilisations of the ancient Near East over a period of 2,500 years. It is chastening to note that this span of time is equivalent to half of all recorded history and that a single companion volume, should anyone wish to attempt it, would have to encompass the period 539 BC to 1922 AD! We hope that our researches will reflect the vast amount of archaeological, pictorial and textual evidence which has survived and been recovered from this region. It is a matter of some regret that the results of much of the research accumulated in this century has tended to be dispersed among a variety of sometimes obscure publications. Consequently, it is seldom that this material is exploited to its full potential as a source for military history.

We have attempted to be as comprehensive as possible and to make use of the lesser known sources and the most recent research. Since, although several works have concentrated on the military aspects of the better-known general 'Biblical' nations in some depth, other nations, such as Mitanni and Urartu, which probably had a greater impact in terms of military developments, have remained in comparative obscurity. Previous research has also tended to focus on the better documented periods while the later dynasties of Egypt and the Early Dynastic and Akkadian periods in Mesopotamia for example, are often summarily dealt with.

Within the usually accepted geographical limits of the Near East (Anatolia, Syria, Egypt, the Levant, Mesopotamia and Iran) we have included the Aegean civilisations because their military organisation and equipment were closely related to their Near Eastern contemporaries and because at times they played a significant part in the politics of the region.

For the general reader the nature of the evidence with which we are dealing often presents problems of interpretation. Ancient styles of art appear unusual and distorted to the modern eye, the artistic principles and aims of ancient artists are frequently not our own. As regards written evidence, we do not possess the type of histories and military manuals that researches of later ages can draw on. Instead, one must utilise the often equally valuable royal annals, chronicles, letters, commemorative stelae and all manner of bureaucratic evidence in order to glean items of military relevance. That many nations were fully competent in matters of organisation, tactics and drill is clear from the administrative and economic texts which were concerned only with day to day reality. Obviously, what can be said concerning the various nations of the Near East at different periods depends on the nature and amount of the surviving evidence. However, this evidence is subject to continual increase and re-interpretation as archaeological investigation in the region progresses.

For those readers who wish to pursue the subject further we have included a bibliography at the back of the book. Its length well illustrates the mass of information available. In general it lists only those works either of most use during our research or those most easily available for the general reader, and we offer our apologies to those scholars who were not included, but whose works provided many valuable insights into this period of military history.

We would like to thank Phil Barker and Bob O'Brien of W.R.G. for giving us the opportunity to write this book, and for their great patience during the later stages of the work.

N. R. Stillman,
N. C. Tallis
October 1984

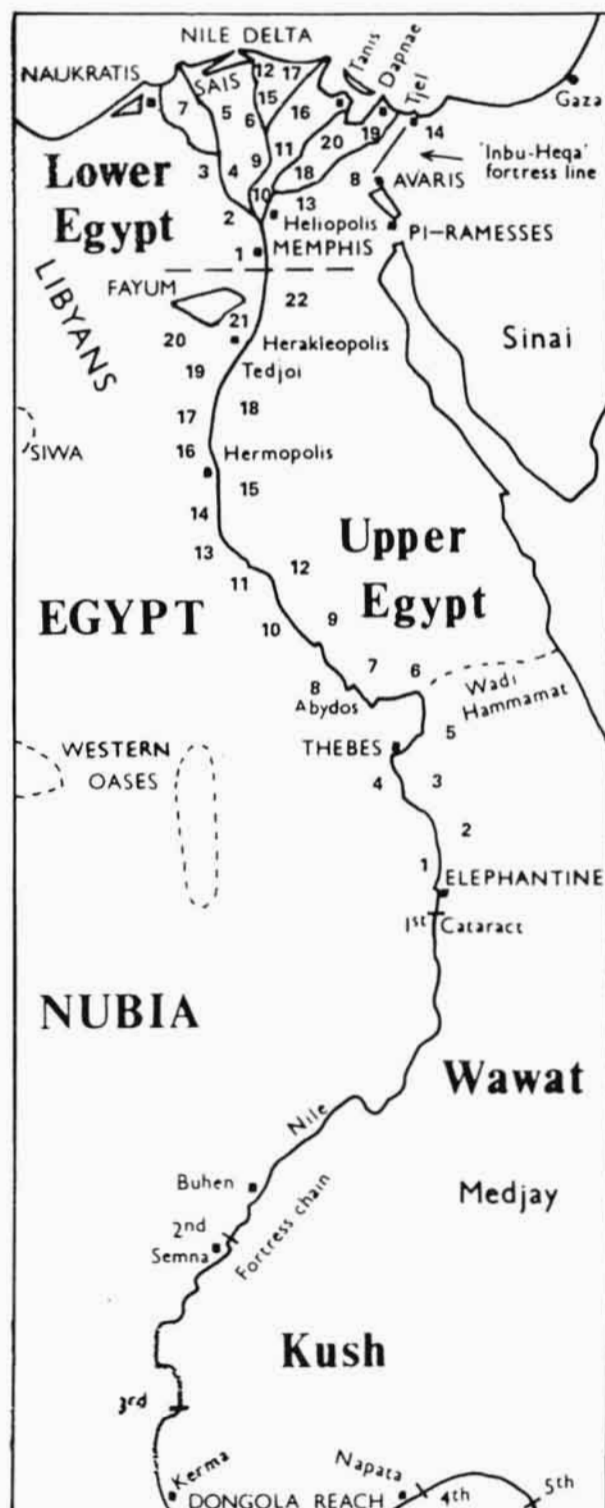
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Note on Terminology

Military terminology, in the languages of the nations concerned, appears throughout in *italic*. These terms often defy adequate translation, although their context in ancient texts indicates their meaning. In many cases it is from the intensive study of such terms that military organisations can be reconstructed, it is therefore most relevant to include them. Egyptian terms have been rendered as Egyptologists would pronounce the consonantal skeleton written in hieroglyphic and we have followed the convention of rendering the Sumerian in capitals with separate syllables. Fortunately the other languages can be rendered directly.

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EGYPT AND NUBIA

Egyptian Nomes

Upper Egypt	Lower Egypt
1 Abu (Elephantine)	1 Ineb-hedj (Memphis)
2 Djeba (Edfu)	2 Khem
3 Nekhen (Hierakonpolis)	3 Hut-ihyt
4 Waset (Thebes)	4 Mefket
5 Gebtu (Coptos)	5 Sait (Sais)
6 Iunet	6 Per-Wadjet (Buto, Xoïs)
7 Hut-sekhem	7 Metelis
8 Abedju (Abydos)	8 Per-Atum (Pithom)
9 Khent-Min	9 Per-Ausar (Busiris)
10 Djeba	10 Kem-Wer (Athribis)
11 Shas-hotep	11 Ka-hebes
12 Tu-hef	12 Tjeb-netjer (Sebennytos)
13 Saut (Asyut)	13 Iunu (Heliopolis)
14 Qis (Cusae)	14 Tjel (Pelusium)
15 Khmun (Hermopolis)	15 Ba'h
16 Hebenu (Oryx-name)	16 Djedjet (Mendes)
17 Ka-Sa (Cynopolis)	17 Behutet
18 Hipponus	18 Per-Bastet (Bubastis)
19 Per-medjed (Oxyrynchus)	19 Djanet (Tanis)
20 Henen-nesut (Herakleopolis)	20 Per-Sopdu
21 Nilopolis	Fayum; A Middle-Kingdom 'created' Province.
22 Aphroditopolis	

Egyptian names so: Abu, Iunu, Khmun etc.

ORGANISATION

EGYPT

THE OLD AND MIDDLE KINGDOMS

The basis of civil and military organisation was the 'nemes' or provinces. These originated as prehistoric tribal districts which combined to form the kingdoms of Upper and Lower Egypt. 'The Two Lands' were united into one country around 3000 BC, by the legendary King Menes. He was possibly Hor-Aha ('Fighting-Falcon'). Each nome was administered by a *haty-aa* meaning 'hereditary-noble' or 'nomarch'.

The Nomes

The general reserve of young men eligible for conscription was known as *djumu*, and from this were drawn those eligible for military service, known as *hewenu-nefru*, (youthful recruits). In addition there were hereditary professional soldiers called *ahautyu* (warriors) who wore red ostrich plumes in their hair. Certain highly trained soldiers were called *menfat*, often translated as 'shock-troops'.

Raising and training of recruits was probably the responsibility of the *imy-er hewenu-nefru* (Commander of Recruits) a function which was usually performed by the nomarch. The Middle Kingdom Nomarch, Thutotep, records the muster of the 'youthful recruits of the West of the Hare Nome', those of the East of the Hare Nome, and also the 'youths of the warriors of the Hare Nome'. Thus nomes that were situated astride the Nile had an automatic division of troops into at least two bodies. The 'youths of the warriors' refers to the muster of the next generation of hereditary soldiers eligible for service. The 'Instructions for King Merykare' (composed by Khety of the 10th Dynasty for his son), mention that recruits 'went forth' at the age of 20. The *menfat*, or shock-troops, had their own commander; the *imy-er menfat* (Commander of shock troops). The various types of troops available in the nomes reflects the fact that many of the 'recruits' would be mainly employed as a source of labour. Good soldier material would have been selected from the youths recruited from the peasantry, to be trained and formed into units to supplement the hereditary soldiers. The hereditary soldiers were perhaps a survival from the predynastic organisation of the nome. The ordinary recruit may have had a limited term of service while the warrior replaced his father and served throughout his active life. This system continued up to the beginning of the New Kingdom, for Ahmose, son-of Ebana, states in his tomb inscription; 'my father was a soldier of the King . . . Sekenenre . . . then I was a soldier in his stead, in the ship, *The Wild Bull*, in the time of . . . Nebpehtire (Ahmose I)'.

Nomarchs were required to supply contingents for national efforts when requested by the king, and normally led them on campaign as their commanders. In the reign of Senusret I (1771-1730 BC), Amunemhat of the Oryx nome took 400 'of all the most select' of his troops on the king's campaign into Nubia. He took 600 'of all the bravest of the Oryx nome' on a subsequent campaign led by the Vizier Senusret. Nome contingents would vary in size according to the population of the nome concerned. This nome was situated in Middle Egypt, and larger numbers would probably be mustered from areas such as Memphis, Thebes and the Delta where the cultivated lands were more extensive.

Nomarchs acted as the generals of the forces of their nome. A nomarch might be commissioned by the king to use his forces to carry out certain tasks, such as obtaining stone from remote quarries in the desert, or undertaking trading missions to distant lands. Small military expeditions might be mounted by nomarchs as part of their responsibilities for certain regions or frontiers. Some nomarchs bore the title *imy-er aw*, meaning 'scout-leader' or possibly even 'commander of foreign auxiliaries'. The most notable of these was Harkhuf in the 6th Dynasty who led expeditions deep into Africa. Their forces were likely to include such foreign auxiliaries as Nubians and Aamu Bedouin.

Protocols from tomb inscriptions show that nomarchs could often hold several other offices such as priest, scout-leader, sole-companion and Royal Seal-Bearer. This might mean control of yet further sources of troops and would represent a great concentration of power in the hands of such magnates. The political reality of the king (*nesu*) was perhaps that he was just the biggest nomarch. In times of weak central authority a nomarch could use his position to seize control of other nomes and even make himself king. The Nomarch Ankhtify of Hieraconpolis united three nomes under his control during the period of anarchy following the fall of the Old Kingdom. The 10th Dynasty was originally comprised of the nomarchs of Herakleopolis who became kings of Northern Egypt during this time. Their main rivals were the nomarchs of Thebes who led the Southern nomes against them. One of these was Mentuhotep who fought his way to the kingship of a united Egypt and founded the Middle Kingdom. The kings of the Old Kingdom had appreciated their position and sought to strengthen it by exalting the institution of monarchy through religious means. This was ultimately not enough and later kings were to make sure that they commanded sufficient material power.

Retainers and the Royal Army

A nomarch would usually maintain a body of personal retainers, or *shemsu*. In tomb paintings of the Middle Kingdom these are usually armed with a large shield and hefty axe. They closely accompanied the noble as he carried out his duties and no doubt comprised his personal bodyguard in battle. The king also possessed *shemsu*, and an inner retinue of highly trusted officials known as 'Sole-Companions' to whom might be entrusted any important commission. In the Old Kingdom the *shemsu* were a very small and select body, possibly not entirely military in character.

During the Middle Kingdom the *shemsu* of the king were expanded and organised as a military unit. In the reign of Senusret III (1878-1841 BC), Sebek-Khu was one of the royal retainers and began his career in command of a unit of 6 men. He was subsequently promoted to a *shemsu en heqa* (Retainer of the Ruler) and given command of 60 men on an expedition into Nubia. His gallantry won him promotion to a *sehedj Shemsu* (Instructor of Retainers) in command of a unit of 100 men. Sebek-Khu fought at the battle of Sekmem as commander of the rearguard, indicating that the royal retainers had an important role on the battlefield.

The *shemsu* were supplemented by troops conscripted from the provinces for the Royal Army. These were called *henu-nefru* (Household Recruits) and were commanded by an *imy-er henu-nefru*, (Commander of the Household Recruits). An 'Army-Scribe' was sent into each nome to select one man in a hundred males to form a company for the Royal Army.

A unit mentioned in the Old Kingdom is the *tjeset* (battalion), meaning simply a large body of troops. The *sa* (Company) appears in the Middle Kingdom but there is no record of its size at this time. Model soldiers from a tomb at Asyut were organised into two bodies of 40 men, which may represent a basic unit of organisation. They march in 10 ranks, each rank being 4 abreast, so they are clearly drilled troops and probably typical of most provincial soldiers.

Foreign Auxiliaries

Of the Nubian tribesmen who served the Egyptians, the most favoured were the Medjay. They were employed as scouts and skirmishers from the Old Kingdom and figure prominently in the campaign of Kamose. The Medjay may be identical to a group known as the 'Pan-Grave' people, of whom archaeological evidence has been found in Upper Egypt. Their cemeteries do not extend further north than the limit of Theban territory during the Hyksos period, so they probably featured mainly in Upper Egyptian forces. They originated in the deserts east of the Nile, in Lower Nubia. Burials contain weaponry and various trinkets of Egyptian manufacture, the presence of which might indicate their employment as mercenaries by the Egyptians. Weapon finds demonstrate that they were archers. By the beginning of the New Kingdom the Medjay had begun to assimilate Egyptian culture and become indistinguishable in the archaeological record.

The model soldiers from a tomb at Asyut comprised a body of Egyptian spearmen and one of Nubian archers. The latter are organised in the same way as the Egyptians, suggesting that some auxiliaries may have been drilled on Egyptian lines as close-order troops.

Apart from the Medjay other foreign troops employed by the Egyptians were Nubians from the tribes of Irtjet, Yam, Wawat, and Kaau, Tjemehu-Libyans and Bedouin nomads from the eastern deserts, Sinai and Southern Palestine.

National Army

The tomb inscription of Weni contains an order of battle for a major national effort against the nomads ('Sand-Dwellers') of Southern Palestine. They must have posed a serious threat to Egypt in the reign of Pepi I (2289-2255 BC) to require an army numbering 'tens of thousands' to be despatched against them five times. Every available source of troops seems to have been exploited and thus reflects the state of military organisation of the 6th Dynasty. Overall command was given to Weni, a highly trusted royal official.

Egyptian troops were drawn from the whole of Upper and Lower Egypt, troops from Sedjer and Kensedjeru (unknown locations) and auxiliaries from the Nubians of Irtjet, Medjay, Yam, Wawat and Kaau and Tjemehu-Libyans.

Egyptian commanders

Nomarchs
Royal Seal Bearers
Sole-Companions of Palace

Possible troop sources represented.

Nome contingents.
Royal troops.
King's inner retinue of officers.

Headmen of Settlements
Companions
Scout-Leaders
Chief Priests
Chief District Officials

Town militias.
Royal retainers.
Foreign auxiliaries.
Troops raised from temple lands.
Royal troops from provinces.

Many of Weni's subordinates would have held several of these offices at the same time and so not all the titles may have been included because they have a military aspect. Weni may have listed such titles simply to emphasise the great authority which had been delegated to him.

There were two central arsenals, one for Upper and one for Lower Egypt, supervised by the *imy-er-perwy ahaw* (overseer of the two arsenals). These could have functioned as centres for the manufacture and storage of weapons to be issued to royal troops and to bring those mustered for national efforts up to scratch.

THE NEW KINGDOM

As a result of the struggle against the Hyksos and imperial expansion into Asia, the Egyptian army became a major state institution, recruited and maintained exclusively by the central authority.

The commander-in-chief of the entire armed forces was the Pharaoh. Directly responsible to him was the Vizier, in his role as Minister of War.

Originally there were only two army corps, one positioned in the North, the other in the South. These are mentioned in an edict of Horemhab (1348-1320 BC). This was later increased to three; *Amun*, *Re (P're)* and *Ptah*, named after the patron gods of the regions in which they were stationed; Thebes, Heliopolis and Memphis. A fourth army was created in the 19th Dynasty, named *Set* (or *Sutekh*), after the patron god of the new capital, Pi-Ramesses. This gave a disposition of two armies in the Eastern Delta, one Central and one Southern army. The main strength was directed towards the eastern frontier and Pi-Ramesses was the marshalling point for campaigns into Asia. Significantly, there was no army to cover the Western Delta, which had not been under threat since the Middle Kingdom. This may explain the difficulty in preventing Libyan incursions at the end of the New Kingdom even though the Western Delta and desert areas were heavily fortified.

Each army corps (*mesha*) provided a field army for foreign campaigns. The Army was commanded by an *imy-er mesha*, or *mer-mesha* (army-general), assisted by an *idnu* (adjutant or deputy).

Against a rebellion in Hamath, which was in danger of spreading and threatened Beth-Shan, Seti I (1318-1304 BC) sent three armies to different objectives. The 'First Army of *Amun*-Mighty of Bows' was sent to Hamath, the 'First Army of *Re*-Plentiful of Valour' was sent to relieve Beth-Shan, and the 'First army of *Set*-Strong of Bows' was despatched to Yenoam (furthest away from the centre of trouble). The designations 'First Army' and the special titles might indicate that each army corps could provide more than one army, possibly one in the field and one in reserve. Alternatively, the home base may have acted as a recruitment and replacement depot, only the best troops being picked for service in the 'First Army'. It also seems likely that there was a military protocol in which the army of *Amun* held seniority, was given the most important tasks, and formed the vanguard on the march (as at Kadesh). Armies could clearly operate as fully independent forces at some distance from each other; the army of *Set* was sent to Yenoam possibly to block any foreign intervention.

Frontier fortresses were divided into a Northern and Southern command, each under an *imy-er khetem* (overseer of fortresses). Garrison troops were called *iwayet*.

Recruitment

Most ordinary soldiers were enlisted by conscription. In the reign of Ramesses III (1198-1166 BC) this was a draft of one man in ten of those eligible for service (*djamu*). It was carried out by the 'Scribe of the Recruits'. One source records an incident of recruitment by impressment. Officers and administrative personnel were usually volunteers. An army career offered great prospects of advancement for an educated man. Horemhab began his career as an army scribe and eventually became Pharaoh. Ay (1352-1348 BC) and Ramesses I (1320-1318 BC) also began in the army. Social status and family connections played a part in the recruitment of the chariotry.

The best of the recruits, or *nefru*, were formed into *sekheperu* (drill-companies) at Memphis or Thebes, and went from there to active service. The term *menfyu* was now used for seasoned soldiery in general. The term for 'private soldier' was *waw*.

Infantry

There were two basic types of infantry; *megau* (shooters) and *nakhtu-aa* (hand-to-hand fighters, literally 'strong-arm boys').

The basic tactical and administrative unit was the *sa* (company). The full complement was 250 men but it could sometimes be under strength. Each *sa* had its own name and standard. This was carried by the *tjai-seryt* (standard-bearer), who commanded the unit. Three administrative personnel were attached to the *sa*; a scribe, adjutant (*idnu*), and quartermaster.

The *sa* was subdivided into 5 platoons of 50 men each under a 'Greatest of Fifty'. These in turn comprised 5 squads of 10 men each under a 'Greatest of Ten'.

Two or more companies could be combined to form a *pedjet* (host). This was commanded by a *hery-pedjet* (host-commander). Attached to the *pedjet* were a *seket* (assault-officer) and a *meshkeb* (transport officer). The *pedjet* was probably a tactical formation, the exact size of which is not known and may not have been fixed. The organisation of the *sa* was based on multiples of five. If this was extended to the *pedjet* it would have comprised 5 companies (1250 men).

The *hery-pedjet* could also act as a garrison commander.

The names of many infantry companies have survived and a selection is included below:

Bull in Nubia

The company of king Nebmare; The Aton Glitters
(Nebmare was the 'Throne-name' of Amunhotep III (1417-1379 BC).

The company of Shooters; Aten Appears For Him
Menkheprure; Destroyer of Syria (Thutmose IV, 1425-1417 BC).

Amun; Strength of the Army

Pacifier of Gods

Strong in Valour

Menkheperre; Ruler of Rulers (Thutmose III, 1504-1450 BC).

Some sources mention companies of only 200 men, such as a papyrus which states that a force of three companies contained 600 men, and some of the Amarna letters in which 200 men or multiples of 200 are requested. It is difficult to discern any point at which the unit size was altered although it had been suggested as part of a military reform in the 20th Dynasty. Most probably, 250 men was a maximum and some units were deliberately maintained at only 200 men, or could not maintain full strength.

Chariotry

The Egyptian term for chariotry was *ta-net-het*. The basic unit was the vehicle itself which was driven by a *kedjen*, 'charioteer', often also called a *keraw*, 'shield-bearer'. The fighting crewman was called a *seneny*.

Attached to each chariot was a *peherer*, 'runner', who fought on foot in support of the chariot. Also associated with the chariotry is the *takem*-bearer, whose function is unknown. It is perhaps an alternative term for one of the other soldiers.

Ten chariots and crews formed a troop of chariotry, commanded by a *kedjen-tepy*, '1st charioteer'. Five troops, comprising 50 vehicles, formed a squadron, under a 'Standard Bearer of Chariot Warriors'.

Several squadrons could be combined to form a chariotry *pedjet*, led by a 'Commander of a Chariotry Host'. As with the infantry *pedjet*, its exact size is not known and may have been variable. If it followed the same pattern as the smaller units it would contain 5 squadrons, totalling 250 vehicles.

Maintenance and administration of the chariotry was carried out by 'the stable' (*pa-ihu*). Stable personnel included an adjutant of chariotry, stablemaster, various scribes, grooms and artisans.

The Phoenix and *Manifest-in-Justice*, are the names of two chariot squadrons. The following unit names could have belonged to either infantry or chariotry:

*The Face of Re
Beloved of Amun
Overthrower of the Evil-Ones
Repeller of the Tehes-Land*

Cavalry

Horsemen were used for reconnaissance and carrying messages. They were called *khapityu*, 'scouts'. They carried a bow and sometimes wore textile armour but do not appear to have had any other combat role. Little is known of their organisation but small detachments probably accompanied each battle formation.

Elite Troops

The corps d'elite of the 18th Dynasty was the *kenyt-nesu*, or 'King's Braves'. They were probably infantry and were used for leading the assault. These troops were the first to be despatched through the breach in the walls of Kadesh when it was besieged by Thutmose III. The numbers of this elite body were made up by the promotion of ordinary soldiers who had distinguished themselves in battle.

Ramesses II (1304-1237 BC) possessed two units of guard infantry; one comprising native Egyptians, the other being 'rebellious-hearted Sherden' apprehended while raiding the Delta and recognised as useful soldier material.

In battle the Pharaoh was accompanied by a body of chariotry retainers including high officials, army commanders and royal princes. The Pharaoh's closest retainers were still known as *shemsu*.

Marines

Infantry companies could be selected to become a *khenyt-net-sekheper*, 'training contingent' of a ship. They would receive training for amphibious operations and then be assigned to a warship. The standard bearer would become the ship's commander. Such troops were distinguished by the wearing of the 'naval-kilt'. Originally this was a slit-leather garment but was later replaced by a kilt in the style of the Sea-Peoples.

A full *sa* of 250 men would seem a large number for a single warship (although the Egyptians were quite capable of building ships large enough to carry a pair of obelisks laid end to end!). The sort of warship depicted in the naval battle reliefs at Medinet Habu would require only 50 men. The full contingent was probably required for large transports from which the marines would disembark to fight on land.

Warships

The best representations of warships of a type designed for fighting in naval engagements occur in the reliefs of a sea-battle at Medinet Habu. These date to the reign of Ramesses III and record his defeat of the Sea-Peoples. The ships had a single bank of 10 oars on each side. The rowers (being marines like the fighting crew) were protected by high gunwales. A castle was mounted fore and aft. The prow did not curve upward, but projected forward. It was carved in the form of a lion's head, with a human head in its jaws, and could have been used to ram enemy ships above the water-line. The mast remained upright in action, but the sail was furled. Steering oars were mounted on the aft castle.

Fighting crew occupied the castles and deck, with the addition of a slinger in the crow's nest, a man swinging a grappling hook in the forecastle and another operating a boarding-pike at the bow.

Auxiliary troops

Foreign troops were organised into separate units on similar lines to native Egyptian troops. The company was commanded by an Egyptian standard-bearer and subdivided into 5 platoons of 50 men. Each of these was led by a 'Leader-of-Tribesmen' of the same nationality as the troops. Auxiliaries were usually allowed to retain their native dress and equipment and probably their own style of fighting. As the '50' was not divided into squads, they may have formed up more loosely than Egyptians and were less rigorously drilled. Foreign troops employed by the Egyptians included Nubians, Libyans, Sea-Peoples, Bedouin, Canaanites and Syrians. When fighting in Retjennu the Egyptian army might be augmented by allies from Canaanite vassal states. These could include *maryannu* and *ne'arin* elite troops.

The Medjay

At the beginning of the New Kingdom the Medjay fulfilled their old function as auxiliary skirmishers and scouts, and were used as such by Kamose. Later, the term Medjay had come to mean the special 'necropolis-police' of Thebes who guarded the Valley of Kings and patrolled the surrounding deserts. Their numbers gradually began to include more Egyptians than Nubians. The commander bore the title 'Chief of Medjay' and was assisted by an *idnu*. They were organised into companies, each under a *hery-Medjay*, and were mainly archers.

Administration and Logistics

Scribes who conveyed instructions to the troops and recorded the captives and booty taken after a battle were called *wehenu* 'heralds'. Deeds of bravery were reported to the Pharaoh by the heralds, and the soldiers concerned were rewarded with 'the gold of valour', or promotion. In order to assess enemy losses, Egyptian troops were given a bounty for every severed hand of a fallen enemy that they brought in. This would obviously open up the possibility that Egyptian dead and wounded might be mutilated by their own men. To avoid this, only the hands of enemies with a lighter or darker complexion were taken. The Libyans, however were generally so similar to Egyptians that the only way to ensure distinction was to order the taking of their uncircumcised phalli. In the reliefs at Medinet Habu, grisly heaps of both members are shown being counted by scribes.

In return for male captives and military equipment taken in battle, soldiers were rewarded with gold, female slaves and land-grants.

All troops were supplied and equipped by the state. Rations included large amounts of bread, vegetables, meat and replacement linen garments. Officers received such luxuries as wine, olive oil, honey, figs and fish. The staple drink was beer.

Size of Forces.

In the Egyptian accounts of the major battles fought during the New Kingdom period, the numbers of Egyptian troops involved are never given. Although figures are often quoted for the size of Egyptian armies, there is no direct evidence to support this. Such figures seem to be estimates derived ultimately from two sources: the Wadi Hammamat stela dating to the reign of Ramesses IV, (1166-1160 BC), and Papyrus Anastasi I.

The Hammamat stela lists the forces sent on an expedition to the stone quarries of the Wadi Hammamat in the eastern desert of Egypt. The military component includes the following:

- 1 Deputy of the Army
- 1 Charioteer of the Residence
- 1 Scribe of the Army Lists
- 1 Scribe of the Deputy of the Army
- 20 military scribes
- 20 Chiefs of Court Stables (chariot warriors?)
- 1 Chief of the Commandant of the Army
- 20 Infantry Commanders
- 50 Charioteers
- 5000 infantrymen
- 50 Medjay police

The twenty infantry commanders would suggest twenty units of 250 infantrymen and these are accompanied by one squadron of fifty chariots. On the basis of this information, it has often been assumed that field armies usually numbered 5000 men and that therefore the total of Egyptian forces involving four armies would number 20,000 men. However there are reasons for doubting the reliability of this document for such calculations, such as the low ratio of chariotry to infantry and the non-military nature of the expedition. The leader of the expedition was the 'Chief of Works', Ramessesnakht, and it was normal practice to use conscript troops as a source of labour. Furthermore, 900 dead who could have included military personnel are stated to be excluded from the list. The overall total of 8362 contains non-combatants such as stonecutters and bodies with uncertain function such as 200 'Court Fishermen'. What we have here is not an example of a typical army, but rather the forces required to obtain stone from the quarries against a threat no worse than local Bedouin bandits, which the chariotry and Medjay are adequate to deal with. The largest body of non-specialists are, in this case, the troops providing the manpower to move the stone. The other main source is a scribal exercise and may not represent a realistic formation. It concerns a force of 5000 men including 520 Sherden, 1600 Kehek, 100 Meshwesh, 880 Nubians and 1900 other auxiliaries.

This is simply a brigade of auxiliary troops over which the scribe must imagine he is in command and for which he must divide up the rations. It is said to be part of an army being despatched against Canaanite rebels.

These texts cannot be regarded as proving a fixed size or composition for Egyptian armies. The term *mesha* is used in the same way as our word 'Army' and can refer to non-military personnel or even objects, as can the word *pedjet*. The size of such forces should be considered as defined by what was required or available for the campaign in question. For military action in remote desert regions against less well-equipped and organised enemies, a small army with a low ratio of chariotry to infantry might be required. In Syria or Canaan or against major threats, much larger armies with a higher ratio of chariotry could be expected. The higher ratio of chariotry required in Asia is demonstrated by the Armarna Letters in which the Prince of Byblos asked the Pharaoh to provide 200 to 600 infantry and 20 to 30 chariots. The ratio here is one troop of 10 chariots to one company of 200 men.

Papyrus Harris records that Ramesses III organised the youth into generations (*djamu*) of 100,000 according to age. Military recruits were probably drafted from these 'generations' on an annual basis. A draft of one man in ten would give a figure of 10,000 fresh conscripts from each draft. These would augment the existing forces containing many career soldiers. The exact length of service is not known but was possibly quite long.

LIBYAN AND KUSHITE PERIODS

At the end of the New Kingdom, Egypt split into two kingdoms. The priests of Amun at Thebes ruled the South while the 21st Dynasty ruled the North from Tanis in the Delta. A stronghold of the Southerners at Teudjoi (El Hibeh) marked the border.

Libyan incursions had continued unabated since the last victories against them under Ramesses III. These augmented the large numbers of Libyans and Sea-Peoples allowed to settle on the land in return for military service. This led to the development of a military caste called the *Meshelesh* or *Ma*. The 22nd Dynasty was a Libyan family, founded by the 'Chief of the *Meshelesh*', Sheshonq I (945-924 BC).

By the mid-8th century BC, Northern Egypt had become a patchwork of small principalities. Some were ruled by *Meshelesh* chiefs, others by local provincial rulers and rival dynasties. The most powerful state was in the Western Delta ruled by the 'Great Chief of the West', Tefnakht (724-717 BC). His attempts to gain control of the South (which had fallen to Kush), provoked the intervention of the Kushite King, Piye (750-712 BC, usually known as Piankhy, but the '*ankh*' is silent).

It is not known to what extent New Kingdom organisation continued into this period. Both kingdoms maintained armies, commanded by the high priest in the South, and a royal prince in the North. The commander-in-chief bore the title *mer-mesha-wer* or 'great army general', lesser officers being *hautyu*, or 'leaders'. The account of the Palestinian campaign of Sheshonq I in II Chron. 12; 2-9, gives the composition of his army as 1,200 chariots, 60,000 'horsemen', and countless Libyans, Sikkims and Ethiopians. The number of horsemen may be an exaggeration for 6000, and could include both chariot crews and some cavalry. The Libyans and Sikkims are probably Libyan and Sea-People auxiliaries.

The remarkable stela recording in detail the conquest of Egypt by Piye around 730 BC, refers to 'Libyans and favourite soldiers' among the forces of Tefnakht. The army of a Northern ruler would be composed of various contingents from the princes under his sway. A large proportion would be Libyans or *Meshelesh*. Egyptian infantry of the New Kingdom type may have declined or disappeared.

THE SAITE PERIOD

The Kushite 25th Dynasty ruled Egypt until they were driven out by the Assyrians. Ashurbanipal appointed Necho, local ruler of Sais in the Delta, as his chief vassal in Egypt following the revolt of Tanutamun (664-657 BC). His son Psamtik I (664-610 BC) took advantage of Assyria's imminent collapse to make Egypt independent. During the 26th Dynasty, or 'Saite' period, Egypt experienced a renaissance and became once more a major world power. In order to assist the Assyrians and block Babylonian advance, Necho II (610-595 BC) led Egyptian forces to the Euphrates. He also created a navy equipped with the latest galleys, supposedly sponsored the circum-navigation of Africa by a Phoenician expedition, and seriously considered a precursor of the Suez canal.

An important development in the military field was the increasing use of Greek mercenaries. Greeks were called *haw-nebu*, 'new-foreigners'. The first body of mercenaries was a party of bronze-clad raiders who had landed in the Delta and were recruited by Psamtik I. They could possibly have been sent by his ally, Gyges of Lydia, to assist Psamtik to achieve independence from Assyria. They were installed in two military settlements astride the Pelusiac arm of the Nile, known as the *stratopaeda*. The qualities of the hoplite were rapidly appreciated by the Pharaohs who built up large forces of Ionian and Karian mercenaries. Apries (589-570 BC) had 30,000 of these stationed in Sais according to Herodotus (Book II).

A major garrison of Greek mercenaries was established at Daphnae in the Eastern Delta and may have been one of the *stratopaeda*. However, as it was still functioning in the reign of Amasis and continued until the Persian conquest of 525 BC, it may have been a separate settlement.

Most of the Saite Pharaohs were phil-hellenes who maintained friendly relations with Greek states. The Egyptian population however regarded Greeks as religiously unclean and avoided close association. The native element of the army was particularly jealous of the favour shown to Greek mercenaries. This resentment finally erupted into a mutiny against Apries resulting in his deposition in favour of Amasis (Ahmose II, 570-526 BC).

Herodotus observed that Egyptian troops were provided by a military caste divided into the *Calasiries* and the *Hermotybies*. They were professional soldiers who spent their time exclusively in military training. Membership of this caste was hereditary and each man was supported by a grant of 12 *araurae* of land, free of tax. 1000 *Calasiries* and 1000 *Hermotybies* were required to serve for a year as the royal body-guard. This was done in rotation so that no man ever served in the guard twice, doubtless a political precaution.

Troops belonging to these castes were settled in certain districts listed by Herodotus as follows:

The *Calasiries* were settled in Thebes, Bubastis, Aphthis, Mendes, Sebennytus, Athribis, Pharbaethus, Thmuis, Onophis, Anysis and Myecphoris.

Hermotybies were settled in Busiris, Sais, Chemmis, Papremis, The Island of Prosopitis and Natho.

Most of these districts are Delta nomes or cities. The total number of *Calasiries* was 250,000. The *Hermotybies* numbered 160,000.

Herodotus records that the Egyptians maintained three major garrisons, one guarding each of the principle frontiers; Daphne watched the Eastern approaches, Elephantine on the Nubian frontier, and Marea on the Libyan frontier. According to the historian, troops served three years on garrison duty without relief, which led to desertions. A colony of such deserters had grown up in Nubia.

A mass desertion from Elephantine in the reign of Psamtik I is mentioned by Herodotus. A similar incident in the time of Apries was recorded by the inscription of the garrison commander, Nesu-Hor.

Troops from the Egyptian military caste could be used as garrison troops.

The Navy

Necho II was very interested in naval matters and made Egypt into a first-rate naval power. Herodotus says that he had triremes built on both the Mediterranean and Red-Sea coasts. Egyptian foreign policy during this period concentrated on preventing the Babylonians and, later, the Persians, from expanding into Syria and Palestine. The Phoenician fleet would be at the disposal of any power that conquered this area and thus it was essential for Egypt to have a navy adequate to defend herself. Assyrian wall-paintings from Til Barsip and reliefs from Nineveh demonstrate that biremes equipped with rams were available in Phoenicia by 700 BC at the latest.

The standard equipment of the Saite navy was a large warship called *Kebnet*. This term replaces the previous Egyptian word for warship, *ahaw* (man-of-war), and so probably refers to a new type of ship. The hieroglyphic determinative shows a Greek-style galley and the term was still used in the Ptolemaic period to describe the polyremes used by both Egypt and her enemies.

The strong ties established between the Saite rulers and Greek states such as Corinth (where Periander named his son Psammetichos after Psamtik II), make it likely that Greek expertise in shipbuilding would be available to the Egyptians. The large and effective naval contingents, supplied by Egypt as a Persian satrapy, which fought at Salamis and Artemision, probably reflect the naval build-up of the Saite Pharaohs.

The commander of the Egyptian fleet bore the title *imy-er kebnet nesu* 'Commander of the King's Galleys'.

Shortly before Cambyses's conquest the admiral, Wadjahorresne, and the Greek commander, Phanes of Halicarnassus, deserted Egypt. The army made a stand at Pelusium but was defeated.

There were several Egyptian revolts. The revolt of Inaris was assisted by the Athenians but crushed by Artaxerxes. A later revolt led to an alliance with Sparta and a period of independence under the 30th Dynasty. Large numbers of Greek mercenaries were employed. Greeks, such as the Athenian general, Chabrias, and the Spartan king, Agisilaus, were now in positions in the high command.

THE LIBYANS

The term 'Libyan' is used here to include the tribes that inhabited the western desert and steppes on the western edge of the Nile Valley. This area stretched from the Mediterranean coast to Nubia, in which the Western Oases were the furthest Egyptian outposts.

The Libyans were nomadic herdsmen who lived in leather tents and relied on hunting, gathering and the produce of cattle and goats.

At first the Egyptians encountered only two tribes, the Tjehenu and the Tjemehu.

The Tjehenu were ethnically akin to the Egyptians and probably became culturally distinct from them at the time of the unification. The Tjemehu, however, were light-skinned and fair-haired. They probably entered Africa from Europe around 3000 BC. Their physical appearance is clearly represented in Egyptian art.

These peoples were the main worry for the Egyptians until the later New Kingdom when the Kehek, Meshwesh, Seped, Mahasun and Libu appear (the name Libya derives from the Libu). Some even more obscure tribes appear in the Papyrus Harris; the Esbeh, Keykesh, Shai, Hes and Beken. One of the main reasons for Libyan unrest was the gradual desiccation of the Sahara which forced tribes to move eastwards, putting pressure on each other which led to incursions into Egypt. The most serious occurrences took place during the later New Kingdom and continued throughout the following period, resulting in dynasties of Libyan origin ruling in Lower Egypt.

In the reigns of Merenptah and Ramesses III several tribes formed coalitions, and in the former reign were joined by contingents of Sea-Peoples. They placed one chief as overall leader and mounted massive assaults on Egypt intending to settle. In the face of defeat, the coalition broke up and the leader was deposed. Following these attacks large numbers of tribesmen were recruited into the Egyptian army and placed in military settlements. These were later augmented by further waves of tribesmen and developed into a military caste taking its name from the tribe of the Meshwesh.

Libyan forces originally consisted entirely of infantry using throw-sticks, javelins and bows. By the late New Kingdom they had acquired a few chariots, probably reserved for chiefs, and large numbers of long swords of Sea-Peoples type (possibly obtained from them). At Per-Yer, 9111 copper swords were taken by the Egyptians but only 12 pairs of horses. At Hatsho, 603 bows, 2310 quivers, 93 chariots, 92 spears and 183 Meshwesh horses and asses were captured. These figures indicate the relative quantities of weapons available to the Libyans. Numbers of slain and captured vary from 2000 to 12000, so a coalition of tribes could produce a large army.

NUBIA

Nubia was divided into two parts; Lower Nubia or Wawat, extending from Elephantine to the 2nd Cataract, and Upper Nubia or Kush extending beyond this. The Nile valley in Wawat was narrow and supported a small population. The desert and scrublands to East and West were inhabited by Nomadic herdsmen. The Nile valley in Kush widens at the Dongola reach and could support a larger population. It was possible for a powerful kingdom to develop here. A kingdom of Kush arose several times in this area and posed a serious threat to Egypt.

The Egyptians campaigned into Nubia as early as the 1st Dynasty, and began exploiting its raw materials in the Old Kingdom. The so-called 'A-group' inhabitants at this time were culturally similar to the Predynastic Egyptians. By the 6th Dynasty, however, the situation had changed and the 'C-group' appear. They may be equated with the tribes and kingdoms recorded by Weni and Harkhuf; The Irtjet, Medjay, Wawat, Yam, Setju, and Kaau. Harkhuf was able to reach Yam by setting off from Aswan or the Abydos region (via the Western Oases) so it must have lain to the south-west, (one journey took 8 months). On one expedition Harkhuf found that the king of Yam had gone to war with the Tjemehu Libyans. This king also supplied Harkhuf with an escort of troops to supplement his Egyptians as they passed through the territory of a confederation of Irtjet, Setju and Wawat tribes.

The Middle Kingdom Frontier in Nubia

The Pharaohs of the Middle Kingdom embarked on the conquest and annexation of Lower Nubia. They intended to exploit the local raw materials (particularly gold), create wealth by trading with the Nubian tribes, extend the frontier further up the Nile (keeping large military forces under the control of the King to do this) and ultimately to curb or conquer the kingdom of Kush, located in Upper Nubia. The process was under way by the reign of Senusret I and completed by Senusret III, who led five campaigns into Nubia and established the frontier at Semna, beyond the 2nd Cataract. During this time the Egyptians constructed a remarkable system of fortresses which show that the science of fortification was already well advanced. Proceeding from the outer defences inward, the basic features of each fort were as follows: A glacis surmounted by a covered parapet, then a dry ditch overlooked by loopholed ramparts equipped with round bastions. A single loophole on the inside, divided into three loopholes on the outside, allowed a single archer to shoot in three directions while remaining totally concealed. There were two levels of loopholes. The gateway was massively fortified allowing attackers to be shot at from three sides as they approached the gate. The ditch was crossed by a drawbridge. The gate protruded from a massive enclosure wall equipped with square bastions and towers rising higher than the loopholed outer rampart. The enclosure walls of fortresses situated on rocky spurs utilised the contour of the ground while those on level ground were rectangular in plan. Directly behind the wall was an open zone allowing a clear field of fire from the battlements against enemies who might actually force an entry. Construction was of mud-brick and timber.

The largest fort could accommodate 300 men and their dependants while the entire system would require a garrison of several thousands. The population of this part of Nubia has been estimated at about 10,000, mainly nomadic people, so the threat from Kush must have been considerable unless the system was also intended to concentrate military power in the hands of the king and away from the provinces (Senusret III actually abolished the nomarchs). Funerary stelae indicate that most of the garrisons were Thebans.

A Middle Kingdom papyrus has survived which lists the Nubian fortresses and gives their Egyptian names. The fortress chain is described below, proceeding from south to north.

1. *Subduer of Nubia*; the fortress at Semna South.
2. *Khakaure (Senusret III) is powerful*; the fortress of Semna. This fort commands the narrowest part of the 2nd cataract. It was the largest and strongest fort and situated on an 'L-shaped' rocky spur.
3. *Warding off the Bows*; Kumma, positioned opposite Semna.
4. *Repelling the Inu*; situated on Uronarti island. It had a long tail-wall to enfilade the stretches of the Nile on either side and impede the progress of enemy vessels.

Semna and Uronarti were linked by a wall 4.5 km. in length, situated parallel to the river on its western side. This guarded against outflanking movements attempting to by-pass Semna.

5. *Curbing the Countries*; situated at Shalfak and also possessing a spur wall.
6. *Iken*; a huge fort and trading centre at Mirgissa, incorporating a fort on Dabnarti Island. This fortress commanded the Kabuka Rapids. These rapids were impassable during the low Nile and a mud slipway 2 km. in length was constructed around them to enable ships to be dragged overland to keep the supply line open all year round. The mud has preserved the marks of feet and ships. This fort was a centre for weapon manufacture and stone 'formers' for shields have been found here.
7. *Buhen*; this impressive fortress was the administrative centre of Egyptian Nubia.
8. *Embracing the Two-Lands*.
9. *'Repelling the Medjay'*; situated at Serra.
10. *Ma'am*; the vast stronghold of Anieba.

North of this point lookout posts were situated west of the Nile manned by troops from the main forts to guard against outflanking movements from the desert. The east bank was not so well guarded as the west bank, but it was occupied by friendly Medjay Nubians.

11. *Baki*; the fortress of Kuban on the East Bank. This was a control point for the Wadi-El-Allaqi gold mines. It also covered a desert road against possible outflanking movements.

Further north there were forts on the Island of Biga, Elephantine (the traditional frontier) and in Upper Egypt.

Some food for the garrisons was produced locally but most supplies were shipped upstream from Egypt, which represented a massive logistical problem. Apart from the slipway, other means of securing year-round passage included a barrage to maintain a sufficient height of water over the rapids and a canal called *Good are the ways of Khakaure*, which was 80 metres long and located near Sehel, to enable warships to by-pass the rapids.

Most forts were within signalling distance of each other or could be linked by signalling outposts.

At the end of the Middle Kingdom high Niles damaged the fortifications and the weak central authority began to lose control of the region. Many forts were burnt. This could have been done by retreating garrisons recalled to Egypt in the face of the Hyksos threat, if not by enemy action. The kingdom of Kush took over Wawat. The capital of this kingdom was probably at Kurma where a massive blockhouse-like stronghold, and burials containing hundreds of sacrificed retainers and Egyptian booty have been found. Egyptian officials (and possibly garrisons?) switched allegiance to the King of Kush. Kush was in contact with the Hyksos and regarded as an enemy by Kamose.

Kamose and Ahmose began the reconquest of Nubia which was completed by Thutmose I. After this there were only a few minor rebellions and punitive raids. Nubia was annexed and converted into an administrative extension of Egypt ruled by the 'Viceroy of Kush', assisted by an *idnu* of the Northern region and one for the South. The garrison was commanded by the 'Battalion Commander of Kush' and many of the old forts were re-furnished and altered. Colonial settlements known as 'Temple-towns' were implanted and the population became increasingly Egyptianised.

By the end of the New Kingdom a serious decline had set in and Egypt completely lost control of this region. One of the last events before the darkness fell was the invasion of Egypt by the Nubian garrison under the viceroy Pinhasi who reached the nome of Cynopolis. He may have been contending with the Libyans for control of Egypt.

The Kingdom of Kush

Around 850 BC a resurgent kingdom of Kush, steeped in Egyptian culture and fanatically devoted to Egyptian gods (pre-eminently *Amun-re*) began to impose itself on Egypt. King Kashta already controlled Upper Egypt when he was succeeded by Piye. When Tefnakht attempted to conquer the South, Piye turned his initial defensive moves into a 'crusade' to conquer Egypt, establishing the 25th, Kushite, Dynasty. The following kings, Shabaka, Taharqa and Tanutamun, defended Egypt from Assyrian expansion firstly by supporting Israelite and Judean rebels and later on their own ground. After years of hard fighting and destruction the Kushites were eventually forced out of Egypt.

The Piye stela and Assyrian records show that the Kushite forces included archers, slingers, spearmen, chariotry and probably cavalry (the Kushite kings were particularly fond of their horses). They were also competent in contemporary siege techniques and possessed a fleet. Piye's success seems to have been achieved by a combination of fanaticism and ingenuity. The later kings fought with great determination against the Assyrians.

On the whole, Nubian tribesmen would be organised on the basis of clan or ad-hoc divisions. The various kingdoms of Kush however could be expected to achieve a higher level of organisation possibly imitating contemporary Egyptian practice and even utilising Egyptian expertise when available.

MESOPOTAMIA

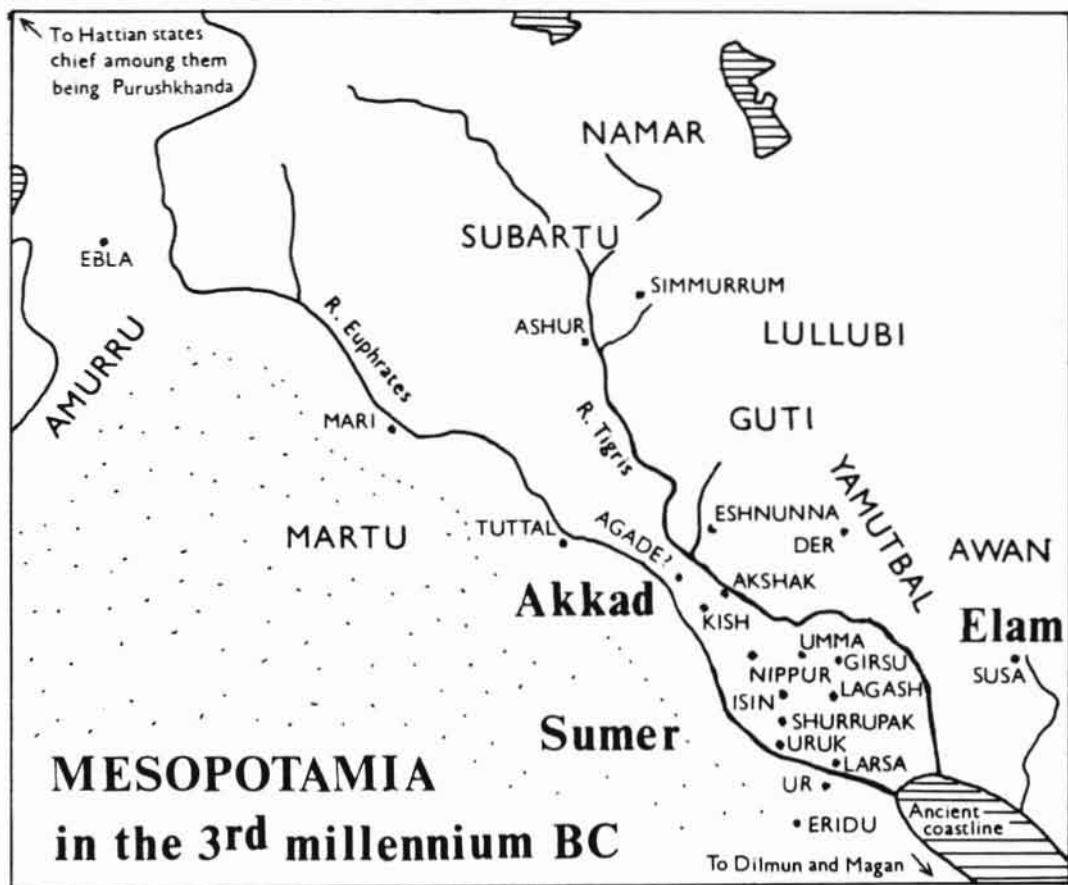
SUMER AND AKKAD: THIRD MILLENNIUM B.C.

Early Dynastic Sumer (c.3000-2334 B.C.)

Climate and geography conspired to enforce civilisation on the inhabitants of Southern Iraq, for, though the alluvial plain between the great Tigris and Euphrates rivers is potentially highly productive, there is scant rainfall and extensive artificial irrigation is essential for agriculture.

The need to raise and direct the labour needed for the digging and maintenance of canals, waterways and other public works demanded a high degree of social organisation and, although the evidence for specifically military organisation is limited, it was clearly based on that employed for civil projects.

By the beginning of the Early Dynastic period the population of Southern Iraq, then known as *Sumer* or *Shumer*, was composed of two main ethnic groups: those who lived in the south and spoke Sumerian, and those, predominantly in the north, who spoke a Semitic language that is now called Akkadian. Both groups shared a common, Sumerian, culture which was widely imitated in both Syria (as represented at Mari and Ebla) and Southern Iran.



Politically, Sumer was divided into several small, competing city-states, consisting of the capital city ringed by outlying towns and villages and surrounded by valuable irrigated farm land and uncultivated steppe used for pasture. The cities were generally large and their populations numerous, the walls of Uruk (traditionally first built by the famous Gilgamesh) were 10 kilometres in circumference, so human resources were considerable. However, Sumer was completely lacking in stone, good-quality timber and metal ore and the city-states vied with each other to gain control of either the trade routes or sources of supply of these vital raw materials — a situation compounded by endemic disputes over waterways and border land.

The Sumerians envisaged each city-state as belonging to its patron god and his 'family' of minor deities, and early Sumerian rulers regarded themselves only as *EN*, 'lord', or *ENSI*, 'governor', of the god's earthly estates, their office combining both religious and secular functions. The precise definition of the differences between the titles *EN* and *ENSI* is unclear, however a third title, *LUGAL* ('great man', or 'king') is less ambiguous, and seems to have been adopted by a ruler who had gained hegemony over several city-states. An even more prestigious title, and one that remained so long after the Early Dynastic period, was 'King of Kish', which, because of the early dominance of that city, became synonymous with Sumerian overlordship. A Sumerian ruler who could gain control of Kish and the holy city of Nippur (the 'home' of Enlil, the supreme god of the Sumerian pantheon) would therefore be universally recognised as overlord of Sumer.

Whether *EN*, *ENSI*, or *LUGAL* a Sumerian ruler was an autocrat whose palace and household (*E.GAL*) came to rival the city's temples.

A Sumerian city-state was a temple, and to a lesser extent, a palace economy. The state's temples functioned as the major administrative and economic units in Sumer, organising trade and employing thousands of workers in temple workshops and on the land. The bulk of the population consisted of landless tenants and labourers who worked on the extensive royal and temple estates (which together accounted for at least two-thirds of a city-state's

land). In times of peace these men were organised into specialised groups according to their profession, under the supervision of *UGULA*, 'commanders', *NU. BANDA*, 'captains', and certainly in the case of a temple's tenants, *AGRIG*, 'superintendents', and *SANGA*, or 'stewards'.

Private landowners did exist but these were family, or 'clan' holdings resembling, on a smaller scale, the estates of the noble and royal 'clans'.

In time of war a city's ruler could conscript both royal and temple tenants for military service, the extent and conditions of which are not fully known. Both labourers and soldiers were called *ERIN* a word which originally meant a yoke or neckstock and succinctly implies the nature of their employment! Two, more explicitly military, titles were *SHUB.LUGAL*, meaning 'king's retainer', and *AGA.USH*, 'follower'. The *SHUB.LUGAL* probably formed part of the royal household and performed regular military and para-military duties. The *AGA.USH*, by analogy with the later use of this term, appear to have been *ERIN* who regularly served as soldiers, rather than as labourers, when fulfilling their obligations as royal or temple clients. A general term for a soldier was *ERIN.SUMMA*, or 'spearman'.

Military units seem to have had fixed sizes, although the size of similarly organised work-gangs varied according to the nature of the work. It is probable that the same officers could be detailed to command both military and civil units.

A *NU.BANDA* probably commanded between 60 to 100 men (since the Sumerians used both a decimal and a sexagesimal number system — which is why we have sixty minutes in an hour). Officers of higher or lower rank were termed *UGULA*, with the actual size of the command being indicated by a numeral suffix, as in, for example, *UGULA.NAM.10* ('commander of 10'). Presumably there were six to ten *UGULA.NAM.10* under a *NU.BANDA*.

Larger units were probably formed by brigading together several of these *NU.BANDA* companies. The largest units mentioned occur in texts from the small city-state of Shurruk, were 670-680 men strong, and are described as 'going into battle'.

Troops conscripted from temple estates appear to have retained their own commanders and command structure. In one documented instance a *SANGA* of the Nimar temple at Lagash led troops levied from its estates to overtake and defeat 600 Elamite raiders carrying off booty from Lagash. *The size of the Elamite force is significant in view of the material from Shurruk and suggests that higher formations were usually 600 to 700 strong.*

In addition to the conscript militia each city-state would seem to have possessed a small, regular force based on the ruler's household. Texts of c.2600 B.C. from Shurruk, at that time subject to the king of the powerful state of Kish, describe a surprisingly large royal household of some 600 men, which includes 144 cupbearers, 113 musicians and 65 cooks (!), together with various craftsmen. Aside from most of the craftsmen these titles were probably only honorary, reflecting both the status of their holders as royal retainers and the common usage of the extended 'household' as an administrative unit in the Near East (the famous Sargon of Akkad began his career as a cupbearer of the king of Kish and governor of Agade). Another text states that the 'chief-mason' of Kish was having his battle-car repaired in Shurruk's palace workshop, which suggests that a proportion at least of the royal household usually fought from battle-cars. Certainly one ruler of the state of Umma had an elite unit of sixty vehicles.

There is little indication of the total number of battle-cars that could be mustered by any one city-state, aside from Umma. However, even if no individual city could afford to maintain more than 60, this would suggest that a powerful *LUGAL*, such as Lugalzagesi who controlled all southern Sumer, could conceivably field over 600 battle-cars.

Tenants and soldiers, including the household troops, received monthly rations of food and oil as wages from temple and palace granaries. Important temple and palace officials also held grants of land from royal and temple estates, generally for life.

The Dynasty of Akkad (c. 2334-2154 B.C.)

The reign of Sargon (Sharru-kin, 'true, legitimate king') of Akkad was a momentous turning-point in the history of Mesopotamia. He, and his dynasty, introduced a new concept of kingship and set a mark that succeeding generations of rulers would attempt to emulate. For the first time Akkadian became the language for official inscriptions, and the Semitic-speaking northerners achieved general political dominance.

To subdue the strongly independent traditions of the conquered city-states, Sargon replaced their rulers with his own governors, or *shakkanakum*. In order to ensure their loyalty they were always Akkadians, and often members of his own family or clan. Those native rulers who retained their positions were closely watched by royal appointees

and officials. Similarly, the religious establishment of Sumer was carefully controlled by Sargon's installation of his daughter, Enheduanna, as high-priestess of Nannar (the moon-god) at Ur.

Akkadian texts relating to specifically military affairs are rare, though much more extensive than for the preceding Early Dynastic period.

Sargon's household consisted of 5400 men, who in Akkadian were termed *gurush*, in Sumerian, *ERIN*. They were stationed in Sargon's palace at Agade, where they 'ate bread daily before the king' and undoubtedly formed the professional core of his army. High officials were the *SAGIMAH*, or 'chief cupbearer', and *SAGI*, or 'cupbearer', as in the previous period. The royal cupbearers probably formed an inner bodyguard for the king.

As in the Early Dynastic period both work-gangs and military units had a similar, if not identical, command structure. The general term for both soldiers and labourers was either *gurush*, or *ERIN*, though it would seem that *gurush* may have had a more precise meaning of an adult male who was capable of a full-days work. Royal and temple tenants seem, as before, to have provided the main part of Akkadian armies, sometimes being described as *lu-uru*, or 'city men', which suggests that their employment and recruitment was still local and based on their home city. The levying of these men was probably the responsibility of the city's *GIR.NITA/shakkanakum*. They were issued with rations of grain and beer every 4/5 days.

However, an Akkadian innovation was the *niskum*, a class of soldier probably to be identified with the *aga-ush lugal*, or 'royal soldier'. The *niskum* held plots of land, almost certainly from the king, in addition to receiving rations of fish and salt every three months. This land-grant marks a considerable change from earlier practice and was probably introduced to strengthen the soldiers' loyalty to the king as an individual (a royal tenant always remained so, no matter who the actual ruler was) while reducing the burden on the palace's economy, since the *niskum* had in part to maintain himself. The system would also provide greater numbers of semi-professional soldiers for the army and ensure that royal forces would be on hand to suppress any revolts locally. Officers and men could be termed *niskum*.

Other, rather comprehensive, terms for soldiers were: *LU.TUKUL.LA*, literally: 'he who ties on the weapon', and *LU GISH GID.DA* or 'spearmen'.

Texts from Umma show that bread rations for workmen and soldiers were issued in lots of 30, 60, 90, 120, 180, 240 and 600 loaves, which would seem to indicate the theoretical strengths of the units present. Apart from the suggested unit strengths of 30 and 90 men these figures accord quite well with Early Dynastic units of 60 and 600-700 strong, and are in any case straightforward multiples of 60. From this evidence it may be postulated that the king's household troops comprised nine 'battalions' of 600 men, each probably commanded by a *GIR.NITA*, or 'colonel'. Other ranks of officer included the *PA.PA/sha khattim*, literally: 'he of two staffs (of office)'. The title indicates that this officer commanded two or more units of 60, since below this rank was the *NU-BANDA* and the *UGULA*; the latter also remaining in use as a general term for 'officer' (as in *UGULA-NU-BANDA*) together with the Akkadian *rabi sabi*, 'troop commander'. The rank of *NU. BANDA* remained unchanged as 'captain', or 'company commander'. *UGULA*, when used with precision, still meant, 'commander', or 'n.c.o.'.

Light troops or skirmishers were known as *NIM*-soldiers, or 'flies', no doubt because of their lack of formation and speed of movement! In the Akkadian period these soldiers could also be foreign mercenaries, from the Zagros mountains and the west, as well as native troops — probably the younger, less experienced conscripts.

It is difficult due to the scarcity of material to judge the different proportions of troops available to an Akkadian commander. However, a list of soldiers guarding the walls at Umma has a body of 107 *nisku* and 469 *LU.URU* 'sleeping on the wall'. If this proportion is at all representative it would suggest that there were four times as many militiamen to semi-regular *nisku*. This does not mean of course that Akkadian armies would maintain these proportions in the field, as the *nisku* were regularly moved about the empire, one letter states: 'his *nisku* have indeed gone away to Uruk', while the *LU.URU* do not appear to have usually campaigned far from home.

The military use of both battle-cars and straddle-cars seems to have declined rapidly following the Early Dynastic period. One suspects that the far-reaching and strenuous campaigns of the Akkadian kings, often directed against lightly armed tribesmen in rough terrain, quickly highlighted the deficiencies of vehicles designed for short-range warfare between nearby city-states.

Both platform and straddle-cars seem still to have been employed as fast mounts for couriers however, special 'chariot roads' being mentioned in some texts. Other texts list numbers of equids and their fodder.

Army sizes are rarely mentioned, though taking all evidence into account, Akkadian armies probably numbered over 20,000 men.

The Third Dynasty of Ur (c. 2112-2004 B.C.)

After nearly a century of anarchy in Sumer, following the collapse of the Dynasty of Akkad's authority, when the barbarous Guti were the arbiters of power in the land, one Utu-Hegal, the king of Uruk, 'returned the kingship to Sumer'. What battles this king fought, what allies he had, we do not know in any detail; although it would seem that most of his short, seven-year reign was spent in driving the Guti out of Sumer and establishing his control of the country. However, Utu-Hegal's dynasty was not destined to last — the king was swept away and drowned while supervising the construction of a new canal. It was his governor of Ur, a man named Ur-Nammu, who was to found a dynasty and an empire that would see the final flowering of Sumerian culture. By his fourth year Ur-Nammu, by force of arms and diplomacy, had so extended his rule as to declare himself: 'King of Sumer and Akkad'.

The kings of the Third Dynasty of Ur, unlike the imperialistic kings of Akkad, did not unduly stress their military achievements. Instead their surviving inscriptions concentrate on the digging of canals, the rebuilding of temples and the restoration of order to the land.

Individual cities and their surrounding districts were administered by governors, *ENSI*, appointed by, and directly responsible to, the king. The *ENSIs* were frequently moved from city to city (for example, the *ENSI* of Ashur was transferred to Susa) either to prevent strong local ties developing as a threat to the king, or perhaps to use the talents of an able man to the full in troublesome areas. Many of these important positions, vital to the cohesion of the empire, were filled by close relations of the king. There are several instances of governors married to royal princesses, and in one case a king's uncle was an *ENSI*.

The duties of an *ENSI* were to maintain order in his city, to keep the local canals and roads in good repair, to collect and organise the district's tribute, and to keep the king informed of events in the area. Communications were maintained by the use of the numerous royal messengers travelling the well-kept roads from city to city in the empire.

In order to prevent the frequent revolts of the Dynasty of Akkad the military responsibilities of the governor were concentrated in a new post, *shakkana*, of equal status to the *ENSI*. The two types of official, the one military, the other civilian exist side by side in some districts, although they were sometimes combined in one person. This is more commonly the case in outlying provinces, whose security depended on the military. Thus the governor of Mari was always a *shakkana*, as was the governor of Elam, while in Zariqum and Ashur it varied according to the military situation.

During the reign of Shulgi the *shakkana* of Uruk was his younger son, Shu-Suen.

As well as commanding his district's soldiers, the *shakkanakus* were responsible for the conscription of labourers for agricultural and constructional work.

Collectively, the men employed on civilian and military tasks were called either *ERIN*, *sabum*, or *ummannum*, and they appear to have been conscripted from tenants on royal and temple land holdings. It would seem that only the best, fittest conscripts were picked for regular military service since soldiers were sometimes termed *SAG.ERIN* or *ERIN.SAG.GA*, 'chosen men'. However, soldiers could still be employed on civilian duties, such as transporting cut reeds and digging and clearing canals. The pool of available civilian labour also functioned as a 'reserve' (*DAMU.DIRI.TA*) used to strengthen the *ERIN.SAG.GA* in emergencies.

The *ERIN* were divided into companies, commanded by the familiar *NU.BANDA*, ideally comprising 100 men in 10 sections of 10 men each under an *UGULA* or *SHESH.GAL.NAM.10* (literally: 'big brother of 10!'). However, companies were sometimes as much as 60% understrength.

The majority of each company were veterans termed *ERIN.GAL.GAL*, or 'strong men', with a small proportion of company strength made up of *ERIN.TUR.TUR*, 'youths' or 'recruits'.

All *ERIN* received regular payments of barley, oil and beer, though one letter from a military commander reports that his soldiers would mutiny if their 'wages' were not quickly paid!

Household soldiers were called *ERIN.LUGAL* or *LU.TUKUL*.

Both soldiers and workmen seem to have been moved about the empire as required, and though army sizes are not recorded, one body of workmen on canal maintenance was 21,799 strong.

It is probable that higher unit organisation remained unchanged from the Akkadian period.

Isin, Larsa and the Amorite settlement.

Following the collapse of the Third Dynasty of Ur, a successor kingdom, centered on the city of Isin, managed to maintain peace and stability in Sumer. The kings of the First Dynasty of Isin deliberately strove to maintain the traditions of the kings of Ur, even to the extent of retaining Sumerian as the official language of inscriptions, though the majority of the population now spoke Akkadian.

During this period, in the early years of the second millennium, many Amorite tribes ceased to be nomadic. Instead, in large numbers, they settled around, and in some cases inside, the old urban centres throughout Mesopotamia and Syria. This process of gradual urbanisation created numerous small Amorite kingdoms, of which the most significant were Aleppo (Yamkhad), Qatna, Mari and Ashur.

The Amorites in southern Mesopotamia were quickly assimilated culturally and by the end of the Old Babylonian period they had been totally absorbed by the native, Akkadian-speaking, population. In Assyria, however, the Amorite dynasty of Shamshi-Adad I was later regarded as an unwelcome intrusion of foreigners 'not of Assyrian blood'.

Of the many Amorite kingdoms established in Mesopotamia two in particular achieved considerable power and importance. The first of these was the kingdom of Larsa, founded by Gungunum, c. 1932 B.C. a 'Sheikh of the Amorites' whose tribe settled about Larsa in the last days of the Third Dynasty kings of Ur. Gungunum seized Ur from Lipit-Ishtar of Isin and gained control of the lucrative trade between Ur and Dilmun (modern Bahrain) in copper, gold, ivory and precious stones from their sources of supply in Iran, Oman, and, possibly, India.

Both Isin and Larsa fought for dominance amongst the multitude of Amorite kingdoms, the kings of both cities claiming to be 'King of Sumer and Akkad'. However, by 1860 B.C., Irra-imitti, the king of Isin, ruled little more than the capital, and Amorite sheikhs had established kingdoms around Kish, Uruk, Marad, Sippar, and a small town called Bab-ilim, or Babylon. Irra-imitti must have been an exceedingly unlucky man. When an omen foretold the death of the king, Irra-imitti followed the standard procedure and proclaimed a 'substitute king', his gardener Enlil-bani. After a short time such 'substitutes' were usually put to death, thereby the omen being fulfilled. Unfortunately Irra-imitti ate a precipitate bowl of broth, and died, leaving the gardener as king. The hurriedly deified Enlil-bani ruled the steadily eroding state of Isin for over 20 years!

THE OLD BABYLONIAN AND OLD ASSYRIAN KINGDOMS 1894-1595 BC

When Hammurapi (1792-1750 BC) ascended the throne of Babylon, the most powerful state in Mesopotamia was Assyria, (known then as Ashur or Subartu,) ruled by Shamshi-Adad I (1813-1781 BC). Most of the area to the south of Babylon was controlled by Rimsin (1822-1763 BC) of Eshnunna. The city-state of Mari, situated on the middle stretch of the Euphrates, at the junction of important trade routes, was within Shamshi-Adad's sphere of influence and administered by his rather effete son Yasmakh-Adad, (we know this from the letters sent to him by his father, which make excellent reading!). Assyrian power began to decline with the death of Shamshi-Adad I. Even his competent eldest son and successor, Ishme-Dagan, could not prevent Yasmakh-Adad losing the throne of Mari to Zimri-Lim, or the rise of Hammurapi to supremacy in Mesopotamia. Hammurapi defeated Assyria, Eshnunna and Larsa, and remained friendly with Mari until that city was itself annexed by him. It is from the enormous palace archive which has survived at Mari, that the political, diplomatic and military situation existing at this time can be reconstructed in remarkable detail.

Military Organisation

Military organisation in the Amorite states of Mesopotamia and Syria (of which Babylon, Assyria and Yamkhad, or Aleppo, were the most powerful) appears to have been very similar. A common tradition of Amorite tribal organisation was combined with elements of Sumerian tradition.

Texts make it clear that there were two basic types of soldier; the (proper) soldier, or (*qaqad*) *redim*, and his reserve, or *takhhhashu*. They were required to serve either on war-service, police-duties or labouring (such as digging canals and building fortifications), this obligation of service being termed *ilkum*. In return for this service the soldier and

his family were granted a house and land by the king, and it appears that all the male members of the family shared the *ilkum* duties in turn, perhaps on an annual basis. These plots of land, generally a minimum of one *bur* or 65 hectares, were apparently divided between the *redum* and his reserve in the proportion of 2:1, and remained the property of the king. This land could neither be leased nor sold, and could be reclaimed by the king at any time. The actual length of service involved in *ilkum* is not clear.

The ruler was usually accompanied on campaign by his household retinue, known at Mari and Ashur either as the *girsequ*, the *kisir sharrim*, or just the *kisrum*. At Babylon the king's retinue was always called the *kisir sharri*, and seems to have comprised 500 to 1000 men.

From the *redu*, were selected elite troops known as *bekhrum* or *be'rum* (derived from the word meaning 'to choose'). Only *awilu* (free citizens) could become *bekhrum*.

Unit Organisation

An army or 'expedition' (*harranim*), could number as many as 20,000, 30,000 or even 60,000 men, but smaller forces of 100, 1000, 2000 and 10,000 are also recorded. The commander-in-chief of an army was known as an *alik pani*.

The *GAL.MAR.TU* or *rabi Amurru*, meaning 'Commander of Amorites', was an administrative rank at Mari, liaising between the army and the court. In Yamkhad, Eshnunna and Babylon (where the rank was *UGALA.MAR.TU* or *wakil Amurru*), he was an active military commander over large bodies of troops, numbering up to 3000.

The *DUB.SAR.MAR.TU* or *tupsar Amurru*, meaning 'scribe of the Amorites', could lead forces in the field. He was second in command to the *rabi Amurru*, in charge of the census and conscript lists.

The *GAL.KUD* or *rabi pirsim*, a 'captain', (known at Babylon as a *PA.PA* or *wakil sha khattim*), commanded the 'company', known as a *KUD* or *pirsim*, of 200 men.

The *NU.BANDA* or *laputtam*, commanded units less than 200 strong but greater than 10, probably 100 men, as this number was required to guard a *halsika* (district) and a *NU.BANDA halsu*, was responsible for a village. He could command a *bazakhatum* (strongpoint) and *bekhrum* (elite troops).

The *ashlatum*, or squad of 10 men was commanded by an *UGALA.(10). LU* or *wakil (10) awilum*, a sort of 'decurion'. At Babylon he was called an *UGALA.NAM.(10)* or *wakil ushurim*.

The ordinary soldiers were known as *UKU.USH* or *redum*, to which the epithet *SI.SA* or *isharum*, meaning 'regular' could be added. Small numbers could act as bodyguards alongside *girsequ*, in bodies around 500 strong. Military reserves were known as *LU.DIRIG.GA* or *wattarum* at Mari, and *DAKH* or *takhhum* at Babylon.

Small detachments of soldiers used for escort or guard duties were referred to as an *aliktum*.

Troop Types

The greater part of the army at this time consisted of infantry, of which there were several different types. The main division was between *sabum kibitum*, or 'heavily-armed troops' and *sabum qallatum*, or 'light troops'. Sources indicate that the *sabum kibitum* required to operate from a base, or take up holding positions, while the *sabum qallatum*, were capable of mounting ambushes or skirmishing, and could include guides and look-outs. Troops could also be defined as *sabum emugatum*, or 'veterans', and as *sabum dannum* or *sabum damqam*, referring to particularly good or effective troops. An interesting troop-type, which appears to have been considered essential to take on campaign (Shamsi-Adad once reprimanded Yasmakh-Adad for neglecting to mobilise them), were the *ba'irum*. The term is derived from the word meaning 'to hunt' (like the Napoleonic 'chasseur' and 'jaeger'), and their principle weapon was an axe.

Chariotry consisted of two types of two-wheeled chariot, the *narkabum* and the *nabalum*. Some chariots were further defined as 'fast'. Chariots are known from Syrian and Anatolian seals and models from Babylonia at this time. Their design was a development of the earlier Sumerian 'platform-car', but were equipped with spoked wheels. They were drawn by two or four mules, donkeys or horses, which were now making their appearance in the Near East. Leather covers for chariots and animals are also hinted at. A limited amount of riding also took place, and a letter from Mari, advises the king that it was not fitting for a sovereign to ride a horse.

Defence

The countryside was guarded against marauders by means of fortified outposts or strongpoints called *bazakhatum*, and guard troops who included spears among their equipment. These outposts reported movements of people, pursued fugitives and were capable of resisting serious attacks. Fire-signals were used to give warning of impending attack and to mobilise the armed forces in defence. A letter from the eldest son of Shamshi-Adad I, Ishme-Dagan, to his rather incompetent brother, Yasmakh-Adad at Mari, tells us that when a large raiding party entered his territory, Yasmakh seems to have panicked and lit two fire-signals at night, which resulted in complete national mobilisation. His brother advised him to send out messengers to report that it was only a false alarm and halt the process.

Auxiliary Troops

Great reliance was placed on assistance from vassal or allied states. Contingents supplied by foreign allies were known as *sabum tillatum*, while native reinforcements were referred to as *sabum ruddum*. Allied contingents could be very large; one contingent sent to Mari from Yamkhad, numbered 10,000 men, another, from Hammurapi, numbered 10,500.

Allies could prove unreliable as Shamshi-Adad I found out. In one letter he refers to a certain Yashub-Addu, who had altered his allegiance several times in the previous three years and in the space of only two months would swear an oath of allegiance to one king and then swear an oath to another, thereby becoming an enemy of the first king. Another source records that 15 minor kings followed Hammurapi, with similar numbers allied to Larsa, Eshnunna and Yamkhad.

Nomadic tribes were often allied or subject to the Amorite kingdoms, and could be levied for military service. This may have been imposed as a condition of settlement within the territory of the state. Military scribes were sent into their encampments to list those eligible for service. Tribesmen were sometimes reluctant to be levied, and in order to encourage them the head of an executed criminal would be carried around their encampments. In one letter Shamshi-Adad states that if the king goes on campaign, every member of the tribe should be made available by the tribal chief. To hold anyone back would be 'sacrilege against the king'. The tribes recorded at Mari were the Hana (who were of particular military importance), Sutu, Banu-yamin (Benjaminites) and Bani-Sim'al. The Banu-yamin were particularly unreliable and uncontrollable. Habiru, or 'Apiru' tribesmen are mentioned, and apparently lived in the approaches to Syria.

Composition of Armies

A letter from Shamshi-Adad I to Yasmakh-Adad consists of instructions as to the muster of troops for a campaign, and may provide an example of a typical army. Yasmakh-Adad has already got 3000 men, levied for their military service. 2000 men are to be levied from among the tribal encampments, for which purpose military scribes have already entered the camps and made lists. 1000 of these men should be Hana, 600 should be levied from the Urapu, Yarikhu and Amanu sub-tribes, and 200 and 300 can be obtained 'here and there' until sufficient number have been collected. Only 1000 personal retainers will be required, and the total of troops will be 6000. To these will be added 10,000 men sent by Shamshi-Adad, probably native Assyrians, described as a strong and well-equipped contingent. A further 6000 allied troops are expected to come from Eshnunna. The entire force is described as '20,000; a strong army', (in fact it totals 22,000).

Supply

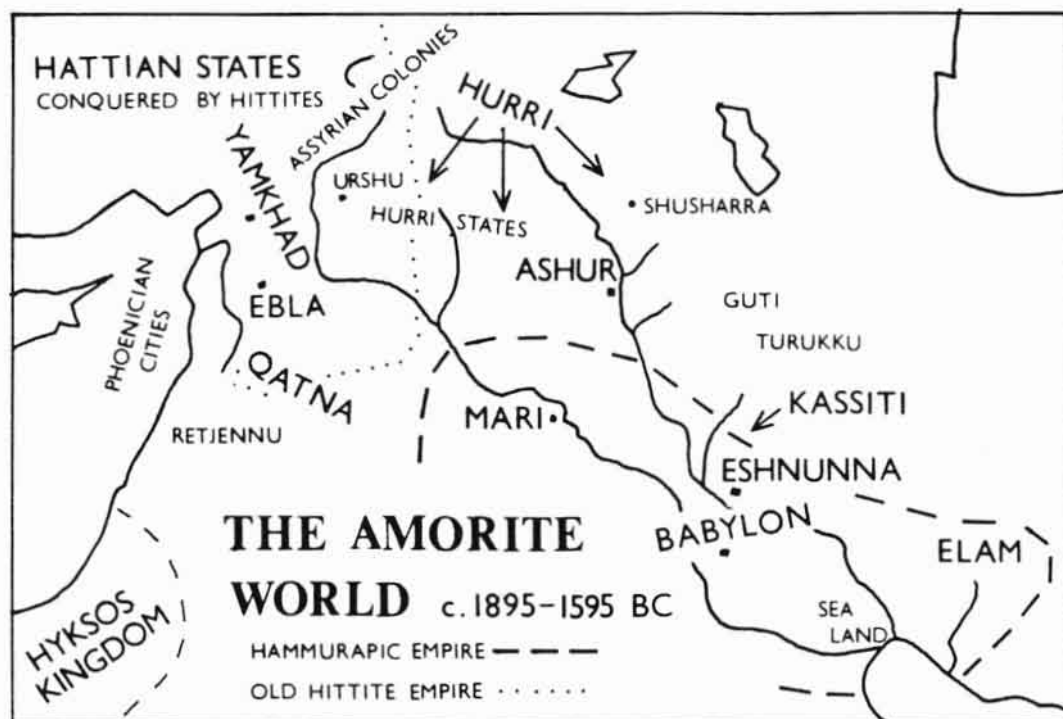
Apart from soldiers, an army would require supplies and transport. This consisted of pack-donkeys, four-wheeled wagons (*eriqqum*) and boats. The latter would be especially important when it is considered that the Euphrates was a major military route. In one case 200 ships were required to transport 3000 men. Although this suggests small ships carrying only 15 men each, they may have been larger with some devoted to supplies.

Mari was a centre for weapon manufacture, and armouries were probably attached to the palace. Shamshi-Adad I sent orders to Mari for shields, arrowheads and siege equipment, and the palace supplied Hana tribesmen with some weapons.

Military Law

The famous law-code of Hammurapi lists several rulings concerning the land holdings granted by the king which carried an obligation for military service. They were intended to protect the system from abuse and ensure that there were always enough soldiers. If a soldier did not answer the call-up or sent a substitute, the penalty was death. If a soldier was taken prisoner or missing in action and the land was granted to another, it would be restored to

its original owner, together with the obligation, if he returned. The land of a missing or captured soldier could be given to his son, but if his son was too young for military service, the family only received one third for their support. Any ransom required to recover a captive could be paid by the temple or the state. (In Eshnunna, if the wife of a missing soldier subsequently re-married and the soldier later returned, he was entitled to have his wife back!). Officers who appropriated a soldier's land grant or abused the system in other ways, were liable to the death penalty. The land grant was inalienable and could not be willed to female heirs. These rules are clearly attempting to ensure that the land remained directly connected with military service.



MITANNI AND MESOPOTAMIA 1600 TO 1200 BC

The Hurrians

The original homeland of the Hurri was situated in the highlands where the Euphrates and Tigris rise, and their language was related to Urartian. During the 2nd Millennium BC, Hurrians began to form a growing element in the populations of Syria and Mesopotamia. By the 17th century BC several Hurrian states had formed in these regions. By 16th century BC a confederation of such states had given rise to a powerful state in the region of Northern Mesopotamia between the Euphrates and Tigris, known as the Jazira. This was the kingdom of Mitanni, known as Hanigalbat to the Assyrians, and probably as Naharin to the Egyptians and Canaanites. The original homeland of the Hurrians was known to the Hittites as the 'Hurri-land'.

The Mitannian Empire

The kings of Mitanni, ruling from their capital, Washshuganni, spread their influence over the states of Northern Syria that had been formerly under Hittite control during the Old Hittite Kingdom; Carchemish, Aleppo, Mukish, Nukhashshe and even Kizzuwatna in Anatolia. Northwards, their control extended over the Hurri-land, and eastwards, deep into Mesopotamia, the cities of Arrapha and Nuzi being close to Nineveh itself. Assyria was hemmed in to west and south by Mitanni and may even have been a Mitannian vassal at this time. This represents the height of Mitannian power in the 15th century BC, achieved during the reigns of Paratarna and Shaustatar. The campaigns of Thutmose III expanded the Egyptian Empire at Mitannian expense, and brought Egypt into direct conflict with Mitanni. Artatama I, regained some territory, and Thutmose IV of Egypt established peaceful relations by entering into a marriage alliance, after lengthy negotiation. The two nations became firm allies during the reigns

of Shutarna I and Amunhotep III of Egypt, perhaps in response to the renewed strength of the Hittites. An anti-Egyptian faction, led by a certain Ud-ki, opposed the Egyptian alliance and assassinated the king, Artashshumara, placing his brother, Tushratta, on the throne. He disposed of Ud-ki and renewed the Egyptian pact, but the seeds of internal strife had been sown. The new king of Hatti, Suppiluliumas, commenced hostilities against Mitanni, but an initial attack was defeated by Tushratta. The Hittites then began to outflank Mitanni strategically by drawing Kizzuwatna under their control and forming an alliance with a rival claimant to the throne, Artatama, who had set himself up as king in the Hurri-land. In three wars, Suppiluliumas conquered Mitanni's Syrian vassals and broke the power of Mitanni, aided by civil war within that country. By supporting rival claimants as their proteges the Hittites brought the greater part of Mitanni under their control. Meanwhile the Assyrians seized this opportunity to secure their independence under Ashur-uballit I, and invaded Mitanni from the East. The final overthrow of a much reduced Hanigalbat, was accomplished by Shalmaneser I (1274-1245 BC).



Mitannian Organisation

Information about the military organisation of the Kingdom of Mitanni derives from evidence relating to the vassal kingdom of Arrapha, situated on the eastern fringe of the Mitannian Empire, contained in the archives from Nuzi.

Arrapha was divided into provinces called *halsu*, each possessing a walled capital and several smaller walled towns, or *alu*. The province was administered for the king by a *halsuhlu*, or *shakin mati* official. Under him, each town and district was governed by a *hazannu*, or 'mayor'. Within each district were numerous *dimati*. These were settlements or estates with their own lord, or *bel dimtu*. The estate comprised a few villages and a fortified 'manor' or watchtower. It was worked by tenants known as *ashshabu*.

Frequent skirmishing with Assyria required that each town be garrisoned by royal Arraphan troops, Arraphan militia, or even regular Mitannian forces. The *hazannu* was responsible for the security of his own district, but may not have actually been a field commander. The militia were stationed in small forces at each town.

One of the documents from Nuzi mentions men of the 'lands' of Hanigalbat, Arrapha and Mitanni, and perhaps, together with Naharin, these names refer properly to great provinces of the Mitannian Empire, the names Naharin and Hanigalbat being assumed by the Egyptians and Assyrians as terms for this great power, being the names of the regions with which they had the most contact. This would explain why contingents could be designated as 'of Hanigalbat' or 'Mitanni' and the use of these names to refer to more specific regions within Mitanni.

The warrior class, or *nakhushshu*, consisted of professional soldiers and militia who were under an obligation to serve. This obligation was known as *isharu*, (literally 'man of arrows') or *ilku*. Soldiers were called *alik ilku*, 'one who performs the *ilku* duty'.

Maryannu

The cream of the army were the chariot warriors known as *maryannu*. The skills of horsemanship and chariot warfare were highly developed among the Hurrians, and the '*maryannu*-system' was probably invented and brought to perfection in Mitanni. Mitannian ideas and the pattern of their equipment had a profound influence on the development of chariotry in all the neighbouring countries.

The term *maryannu*, meaning 'noble chariot warrior', derives from an Indo-European word related to the Sanskrit *marya*, meaning 'youth' or 'hero'. *Maryannu* status was connected with land holdings and could be hereditary. There could be more than one grade of *maryannu*-service, but not all chariotry personnel were of *maryannu* status, and not all *maryanna*, possessed chariots.

The king possessed an inner bodyguard of chariotry known as the *shepi sharri*, (literally 'the feet of the king'), consisting of about ten chariots. A force of ten chariots was also required to provide a bodyguard for the king's son in battle. The rest of the chariotry consisted of elite charioteers, known as *alik seri*, meaning 'campaigner' or 'veteran', and militia charioteers.

Royal *maryannu* could be sent out from the palace in Mitanni to assist in the defence of the provinces. These 'charioteers of Hanigalbat' are known at four towns, numbering over 200 chariots in all.

Each charioteer was assigned *ahu* or 'brothers', (probably grooms or 'squire'), and 'bowmen of the charioteers'.

Hanigalbat (Mitanni) and Kardiniash (Kassite Babylonia) were noted as sources of good horses. The Hurrians appear to have been expert at horsemanship and a Hurrian manual on the subject written by a certain Kikkuli, was translated into Hittite at Hattusas, indicating how other nations valued their expertise. Horses began training in their 1st year and were pulling chariots by their 3rd year. They became proper chariot horses between their 4th and 9th year. Horses were graded according to quality and reserve horses were known as *matru*. Horses were fed on barley and regularly exercised by being driven certain prescribed distances.

At Nuzi, horses were apparently ridden on occasion and messengers called *mar shipri*, are known to have travelled in this way. A term for 'horseman' was *rakib susi*.

Infantry, known as *shukuthlu*, comprised both archers and spearmen who could be equipped with swords and leather armour.

The *ashshabu* tenants could also serve as soldiers.

Unit Organisation

The chariot unit, or *emanti*, of 5 or 10 vehicles was commanded by an *emantuhlu*. Six such units were commanded by a 'chief *emantuhlu*'. This officer was also involved with supplying rations to the men under his command and one is recorded as commanding a garrison, so it is possible that he could also command infantry.

Apart from the chariot organisation mentioned above, texts refer to officers called *rab* (5), *rab* (10), and *rab* (12), who commanded units of these sizes. The *rab* (10) was equivalent to the *emantuhlu*. Inventories of equipment are sometimes in quantities of 100 or just over 200, suggesting further possible groupings. One source lists 3000 *alik ilki*, consisting of charioteers and archers, another records the following troops and numbers; 536 charioteers, 261 *alik ilki*, 196 *nakhushshu*, 26 *ashshabu*, 82 archers, 66 *alik ilki* archers and 55 bowmen of the chariotry. Texts also refer to men mustered from particular cities, indicating that districts may have provided the basis for individual units.

Many Nuzi tablets are described as 'tablets of the right' or 'left', and entries refer to men of the 'right' or 'left' and the inspection of equipment belonging to these two divisions. This would indicate that the army was divided into left and right wings for organisational and tactical purposes. Presumably there was a 'centre' also. Texts speak of 230 men, 156 of whom are charioteers, of the 'left', 260 'brothers' of the 'left' and scale armour for men and horses of the 'left', so we should conceive of left and right wings of the army comprising hundreds of well-equipped chariots, probably with infantry support. Some of these men are associated with the palace and so may be elite troops.

Karduniash; Kassite Babylon

The Kassites (Kashshu), whose original homeland was in the region of Luristan in Iran, made their appearance in Babylonia as the Old Babylonian Empire fell into decline. They seem to have infiltrated peacefully, gradually settling on the land, eventually creating a kingdom on the frontiers of Babylonia. While this was happening, Southern Babylonia had rebelled, creating an independent kingdom of the 'Sea-Land', but it was the Hittites, under Mursilis I, who delivered the final blow to the Old Babylonian kingdom when they advanced down the Euphrates and sacked Babylon. After a short period, when the king of the Sea-Land was in control, a Kassite dynasty ascended the throne of Babylon. By 1460 the Sea-Land had fallen under their control, and Karduniash, as Kassite Babylon was known, became a united and apparently well-governed state, recognised as a first-rate power by her neighbours.

Military campaigns were directed at three main enemies. The Sutu tribesmen, inhabiting the deserts near the middle Euphrates, the Elamites, who often mounted raids into Babylonia, and chiefly the Assyrians, usually in dispute of border territories. The Sutu seem to have been quite a serious menace, one raid penetrating as far as Uruk. Messengers to and from Karduniash were regularly interrupted while passing through the regions in which they roamed. Kadeshman Kharbe led a major campaign against the Sutu and established a permanent garrison to secure the route. Both Karduniash and Assyria were equally concerned about these nomads and sometimes co-operated by exchanging intelligence reports. Kurigalzu (1340-1324 BC) achieved a major victory against Elam, and succeeded in capturing Susa. The Elamite king, Khurpatila, had mustered his army in the fortress of Dur-Shulgi and threatened to invade Babylonia. Here he was defeated and pursued into Elam. Kurigalzu also appears to have been successful in one of the many border wars against Assyria, defeating the Assyrians in two battles at Arbela and Sugaga, close to Ashur, the capital of Assyria. These wars usually resulted in a new demarcation of the border between the two countries.

With the collapse of the Mitannian Empire, Assyria became stronger and began to intervene in Babylonia. The Kassites seem to have formed alliances with the Turukku and Gutu tribes of the Zagros mountains in order to outflank Assyria, forcing Assyrian expeditions into these regions. Kashtiliash IV (1242-1235 BC) provoked a decisive Assyrian response when he invaded Assyria while Tukulti-Ninurta I was on campaign far to the north in the highlands of Nairi. A major war ensued in which Kashtiliash was forced back and defeated. The Assyrians went on to capture Babylon, annex important border districts and install their own governors in Babylonia. Following this Assyrians, Elamites and Kassite rebels vied for control until the King of Elam, Shutruk-Nahhunte, invaded Babylonia, defeated her army and plundered Babylon very thoroughly, carrying off the image of the state-god, Marduk, to Susa. The Kassite dynasty was brought to an end.

Surviving records from this period are sparse and have received little attention, so it is difficult to reconstruct Kassite military organisation. A system similar to that of Arrapha, described under Mitanni, is likely. The army probably featured a strong chariot arm as the Kassites, like the Hurrians, were renowned for their knowledge of horsemanship. Horses from Karduniash were in demand as far away as Egypt and Hatti. Large quantities of gold were received from Egypt in return for horses and chariots. The *kudurru*-stones, inscribed boundary markers recording land-grants, suggest a land-owning aristocracy which could have provided the chariot-warriors. Letters to high officials and kings refer to guards, forts and chariotry of their cities or territories. The inscription of Lakti-Marduk, dating to the following dynasty, records that he was a commander of the chariotry of the right-wing. The inscription concerns a land-grant in return for his service at the battle of the Ulai (c. 1120 BC). Representations on *kudurru* demonstrate the existence of infantry archers.

ASSYRIA

The military history of Assyria falls into three main periods; (1) the Old Assyrian Period (2000-1700 BC), during which time the king, Shamshi-Adad I (1813-1781 BC), created an Assyrian Empire which included the state of Mari. Assyrian military organisation at that time was probably closely related to that of Mari and is described together with the Old Babylonian system in an earlier section. (2) The Middle Assyrian Period (1365-745 BC), when Assyria broke away from Mitannian domination under Ashur-uballit I, began to establish her control over Mesopotamia, fought off the Aramaean incursions and embarked on a policy of conquest which created the Assyrian Empire. (3) The Neo-Assyrian Period (745-609 BC) corresponds to the Assyrian Empire at its height, from the re-organisation of Tiglath-Pileser III to its final overthrow by the Medes, Babylonians and Scythians.

THE MIDDLE ASSYRIAN PERIOD 1365-745 BC

Up to the time of Ashur-uballit I (1365-1330 BC), Assyria had been a relatively weak state, restricted to the Upper Tigris valley and probably a vassal of Mitanni. The region of Arrapha and Nuzi, close to Nineveh, was part of

the Mitannian Empire, and the military organisation of Assyria was probably very similar. It is likely that later Assyrian military organisation developed from Mitannian roots. The Assyrians had to defend themselves against enemies on all sides, the Mitanni, the Kassites, Suhu and Ahlamu tribesmen to the south, and mountain peoples to the north and east. When the Mitannian Empire began to break up under Hittite attack, the Assyrians, under Ashur-uballit I and later Shalmaneser I, seized territory from Hanigalbat (as Mitanni was called in Assyria), and came into contact with the Hittites. A few border skirmishes may have followed, encouraging the Hittites and Egyptians to make peace in the face of this new threat. Kassite influence over Assyria was decisively ended by Tukulti-Ninurta I (1244-1208 BC). The conquest of Hanigalbat probably had a great strengthening effect on Assyria as this region already had a well-developed military organisation and warrior class. Tiglath-Pileser I (1115-1077 BC) conquered regions further west of Assyria and led Assyrian arms across the Euphrates as far as the Mediterranean, but it was a short lived success, for the Aramaean incursions threw Assyria onto the defensive for several generations. The nomadic Aramaeans overran many of the Hittite successor states. They also occupied the Babylonian countryside, but were narrowly prevented from settling in Assyria by determined efforts on the part of Assyrian kings, although the Assyrian territories west of the Tigris were lost.

Adad-Nirari II and Tukulti-Ninurta II campaigned against the Aramaeans and succeeded in conquering territory as far as the river Khabur, and Assyria had recovered as a military power with the accession of Ashurnasirpal II (884-859 BC). This ruthless and aggressive king led Assyrian arms once again as far as the Mediterranean coast. His successor, Shalmaneser III (858-824 BC), campaigned in the Taurus and Zagros mountains and in Babylonia, sent an army deep into Iran as far as Media, and attempted a lasting conquest of the Neo-Hittites and Aramaeans west of the Euphrates. Bit-Adini was conquered in 856, and in 853 Shalmaneser crossed the Euphrates. He was prevented in achieving his objective by a coalition led by Hamath and Damascus at the battle of Karkar. Shalmaneser continued to attack these states and in 841 'crossed the Euphrates for the 16th time', but failed to conquer Damascus. Eventually Shalmaneser abandoned this policy. He had also attacked Urartu but, again, without lasting results.

Despite their military prowess, the Assyrians were not able to create an empire out of their conquests, only a sphere of influence within which they were supreme. The main strategy behind their campaigns was to reduce the power of their rivals and increase their own. Tribute was imposed on conquered states, and punitive expeditions were sent promptly if it was not forthcoming. This tribute was of massive economic value to Assyria and included livestock, foodstuffs, luxury goods, wood, captive labour and items of direct military value such as horses, chariots, iron, other metals and weaponry. In order to increase respect and renown, a form of psychological warfare was developed in which severe reprisals were meted out against enemy resistance or rebellion. These methods were represented in palace reliefs, where visiting dignitaries could see them and take note, and so may not actually have been used as much as it would appear.

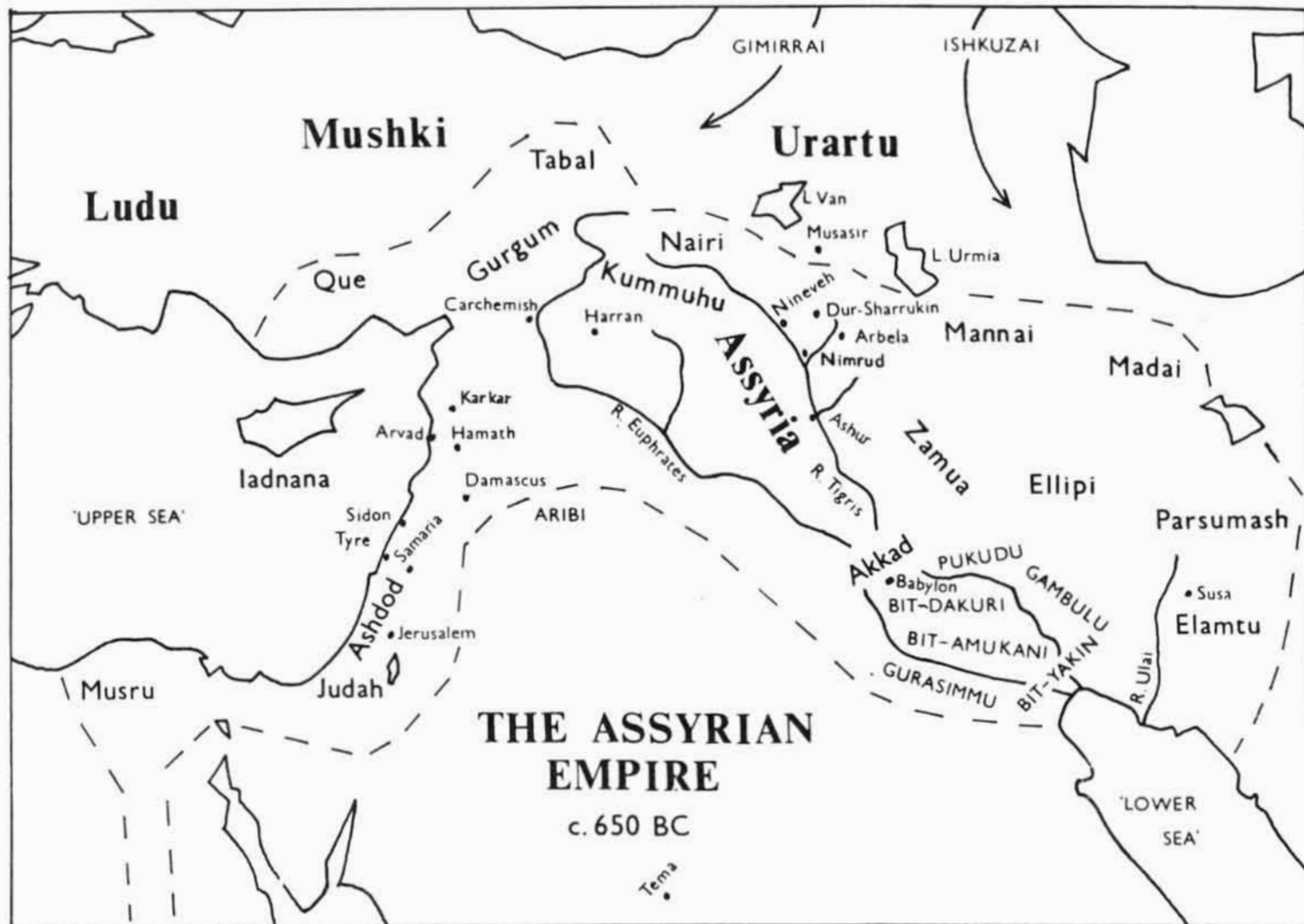
Military Organisation.

The military organisation of Assyria at this time was probably developed from the system used in Mitanni, which had once extended into what was now Assyria and in the regions east of the Euphrates which Assyria had taken over. It was probably based on an obligation to render military service to the king on the part of individuals known as the *ilku*-obligation. This continued into the Neo-Assyrian period, and the *sab sharri* element of the later organisation may preserve something of the earlier system, although then extended to the Empire as well. One source records troops known as *khuradu* (quradu?), who carried out the *ilku*-obligation with their 'brothers'. In the time of Shalmaneser III men were levied from the villages and assigned by the provincial governor to various units or officers, in a similar manner to later practice. These units were probably also *kisri*, as the rank *gal kisru u khuradu* ('commander of *khuradu* units') is known. Some sort of substitution may have been possible as lists exist of men levied as substitutes (*kumu*) for others.

The army consisted of chariotry, probably provided by a land-owning nobility, and some regular elite chariotry of the king; cavalry, which probably developed during the 9th century out of the chariotry; and infantry, consisting of *hupshu* and *asharittu*. The *hupshu*, were peasant conscripts and the *asharittu* were better-trained and equipped elite troops. The term *asharittu* is related to the words *asharidintu* ('prowess') and *asharidu* ('vanguard'). Tiglath-Pileser I records that some of his soldiers were trained 'for a fight to the finish'. Infantry comprised spearmen and archers.

As to unit organisation, the basic unit, or *kisri*, appears to have existed and represented troops recruited from a certain locality. A smaller unit was a squad of ten men, commanded by a *gal 10*, or *rab eshirte*. The levy of troops from their villages was the responsibility of the *rab alani* (village overseer). Forts (*halsu*) were manned by *sabi ashabu* (garrison troops) and commanded by *hamalu*, or *halillu* officers.

The second-in-command to the king was the *turtanu*, a general who could lead campaigns instead of the king, as did the *turtanu*, Daian-Ashur, during the reign of Shalmaneser III.



THE NEO-ASSYRIAN EMPIRE 745-609 BC

The military and administrative organisation of the Neo-Assyrian Empire was probably the result of reforms made by Tiglath-Pileser III (745-727 BC). Shalmaneser III died in 824 BC amid rebellion and civil war in Assyria. He was followed by a succession of weak kings who were unable to maintain internal stability and hold Assyria's conquests in the face of the growing power of Urartu. Adad-Nirari III, who did achieve some limited success, ascended the throne as a minor, his mother, Sammuramat (Semiramis), acting as regent. The problem was also partly due to the old military and administrative system, which was falling into decay. In 745 BC a revolt in Kalhu (Nimrud) placed a certain general Pulis on the throne, who took the name Tiglath-Pileser (III). Tiglath-Pileser proceeded to reform the government of Assyria in order to strengthen the central authority and weld Assyrian conquests into an empire stronger than before. Assyria itself was re-organised into smaller provinces, and vassal states were annexed and transformed into further provinces. Each was governed by a state appointed *bel-pihati* (provincial lord) or *shaknu* (governor). Territories not suitable for annexation were nevertheless supervised by a *qepu* (overseer). An efficient courier system was established throughout the Empire and the king maintained close control over the provinces and received detailed reports (surviving examples being invaluable for the reconstruction of military organisation). A regular standing army was created, backed up in time of war by a well-organised call-up of men under obligation to render military service. Perhaps the least successful innovation was the mass deportation of subject peoples and their re-settlement in other parts of the Empire, probably intended to diminish national loyalties and enhance a sense of belonging to the Empire. It tended to enhance dislike of Assyria.

The army was divided into four component parts; (1) the *qurubuti*, or 'household troops', (2) the *kisir sharruti*, or 'king's standing army', (3) the *sab sharri*, or 'king's men', a sort of 'territorial army', and (4) the *dikut-mati*, or 'general levy', a sort of 'levy-en-masse' of the population, likely to be used only in times of great national emergency. The first three elements must now be described in greater detail.

The Qurubuti

The *qurubuti*, known more fully as *qurubuti sha shepe* and often simply as *sha shepe*, comprised the personal bodyguard of the king. The crown prince and the queen also had their own bodyguard units, the *qurubuti mar sharri* and the *qurubuti ummi sharri*. The *qurubuti* contained both cavalry, or *qurubute sha pithalli* and chariotry, *narkabtu shepe*. Sargon II records two occasions when he went into action accompanied only by his bodyguard cavalry, which numbered 1000 men. Bodyguard infantry also existed, known as *zuku shepe*. One unit was called the *zuku shepe quradu*, the term *quradu*, meaning 'heroes'.

The Kisir Sharruti

The *kisir sharruti*, or 'king's standing army', was a large force composed of regular, professional soldiers, maintained by the king. Elements of this force would be stationed throughout the Empire in order to back up the locally-recruited forces. Most of the troop-types used by the Assyrians were represented among its ranks. These comprised; chariotry (*narkabtu*), cavalry (*pithallu*), and infantry (*zuku*). The infantry were further sub-divided into archers (*nash qasti*), spearmen (*nash azmaru*), various types of shield-bearers, and slingers. Records show that the best elements in the armies of conquered countries were recruited into the *kisir sharruti*. Sargon II, for example recruited 50 chariots from Samaria (Israel), 200 chariots and 600 cavalry from Hamath, and 200 cavalry and 3000 infantry from Carchemish. Judean infantry and large numbers of Aramaean, Chaldean and Elamite archers were also recruited into this force on various occasions. These troops would be issued standard Assyrian military uniform and equipment and become almost indistinguishable from the Assyrian soldiers, unlike provincial levies.

The Sab Sharri

The *sab sharri*, or 'king's men', were under an obligation to render service to the king, which was known as *ilku*. The *ilku*-obligation may have been connected in some way with land, although some non-landowners were also liable. It was administered according to village of residence. Some land-grants carried an exemption (*zakute*) from *ilku*. There were three types of *ilku*-service; as a soldier (*sab sharri*), as a reserve soldier (*sha kutalli*), or as a worker on capital projects (*dullu*). The best men were selected to discharge their obligation as soldiers. Equal numbers were selected to stand by in reserve and the remainder served as *dullu*. Some men could have their service as *sab sharri* commuted to bearing the cost of equipping and supplying another *sab sharri*. The *ilku*-obligation was a regular annual requirement and could also be imposed especially for a campaign, or 'hulu', perhaps because campaigns were sometimes required at unusual times of the year. The provincial governors were responsible for the mobilisation of the *sab sharri* in their province. Each *rab kisri*, or 'unit-commander' was allocated a village or group of villages by the king from which to form his unit and was responsible for the call up of his own men. The troops would

frequently be required to move from their province of origin to join a campaign or serve in another province, so when the mobilisation was completed, the provincial governor handed over the troops to an officer responsible for their transit, the *sha qurbuti*. This system applied in all the provinces of the Empire, and it seems that native Assyrians provided the majority of the chariotry and cavalry, while subject peoples, especially Aramaeans, provided most of the infantry. Under the designation *sab sharri* were included some full-time mercenaries who were supported by special land-grants known as 'bow-land'.

Requisition of Horses

Horses were extremely valuable and vital to the military organisation of the state. Horses did not figure as an important part of the rural economy and were hardly ever used as ordinary draught animals along with oxen, donkeys, mules and camels. This is demonstrated by census records and was probably the case in similar economies such as those of Babylon and Egypt. The horse was primarily kept and bred for war. Horse stocks within Assyria had to be regularly strengthened by horses obtained from such important horse-breeding regions as Iran, Urartu and Anatolia. These could be captured during campaigns or acquired as tribute (*madattu*). There were two types of horses, *sha niri* or 'yoke-horses', the most numerous type, required for harnessing to chariots, and *pithallu* or 'cavalry mounts', which were more valuable. Military horses were most probably state property. They were kept and looked after, however, by the soldiers in their villages when not on campaign, who received assistance for this from the state. During the 1st, 2nd and 3rd months (March-May), these horses were requisitioned in the provinces in a similar manner to the call-up of the *sab sharri*, the same term, *bitqu*, being used for the levy of both. This was in readiness for the beginning of the campaign season in the 4th month (June). The central authority sent out two *musharkisu* officials into each province to collect the horses. They were assisted by a *shaknu sha pithalli ma'asi*, or 'governor of the cavalry corral'. There were also *musharkisus* for specific parts of the army, such as the *musharkisu sha pithalli qurubute*, who collected for the cavalry bodyguard. The horses were assembled at *pirrani* (assembly points) situated at Nineveh, Dur-Sharrukin (Khorsabad), and Kalhu (Nimrud), where the main arsenal, the *ekal-masharti*, was located. The *bitqu* of horses also included a small proportion of mules (probably for pack animals). This information is based on administrative documents including daily reports of the horses entering the assembly points. These show that during the first three months, hundreds of horses were arriving from the provinces each day. The figures of horses are listed according to the province and according to certain high officials, representing their great landed estates.

Unit Organisation

The overall commander of the army was the king, (*sharrum*). Under him were several high officials whose duties were varied, such as the *rab shaqe*, *abarakku*, *rab ekalli* and *rab sha-rishi*. Of these, the *rab shaqe* could be employed in a military capacity, but the commander-in-chief and second-in-command to the king was the *turtanu*. There were, in fact, two *turtanus*, the *turtanu sha imitli*, or 'turtanu of the right', and the *turtanu sha shumeli*, or 'turtanu of the left', the former being the chief *turtanu*. As the terms suggest, these commanders probably took charge of the right and left wings of the army in battle. Presumably the king commanded the centre. The *bel pihati* and *shaknu* (provincial governors) commanded the forces stationed in their provinces, assuming the title *shut reshi*, or 'general' of the province.

The smallest unit of organisation comprised 10 men under a *rab eshirte*, or 'commander of 10'. The *rab kisri* led his own company or *kisru* ('knot') of 2 platoons raised from his area. Several *kisri* brigaded together under a military *shaknu* (not to be confused with the gubernatorial rank) formed higher tactical units. Chariot *kisri* comprised five 10 vehicle sections under *rab eshirte* and *rab kisri*. This represented the regiment recruited from a village or group of villages, or a garrison.

Troop Types

A great variety of troop types were available to the Assyrian army. These included: chariotry (comprising such crewmen as 'chariot-men', 'rein-holders' and 'third-men'); cavalry, or *sha pithalli* (comprising bowmen and spearmen); infantry, known as *zuku* or *zuk shepi*, and pioneers, known as *kikkitlu* or *kishkatlu*. There were several different types of infantry, defined according to equipment or function as archers (*nash qashti* or *sab qasti*), spearmen, or *nash azmaru*, three types of shield-bearer; *nashi tukshi*, *nash kababi* and *nash aritu*, and slingers. It is not clear as to the distinction between the different types of shield carried by the three types of shield-bearer. Presumably these troops were equipped with a weapon in addition to the shield, and these may be alternative terms for the spearmen, specifying the type of shield being carried. It seems likely that these troops formed the front ranks of mixed bodies of archers and spearmen. Some troops, *kallapani*, forming the vanguard, seem to have travelled in light vehicles.

Reliefs show that troops also varied according to armour and formation. Scale or lamellar armour was usually issued to elite troops, chariotry, cavalry and close-formation infantry. Lightly-armed skirmishers, operating in open-formation, armed with bow or sling, were provided by levies from subject peoples such as Aramaean and Chaldean tribesmen. Mercenaries were obtained from these tribes and possibly also the Cimmerians and Scythians.

Whatever their primary role, troops could be converted to other function as occasion demanded. It seems likely that cavalry were originally chariot crews, re-trained, perhaps, in order to work in difficult terrain, and chariot crews could also be dismounted to operate as a unit during sieges. The well-armoured chariotry crews would perhaps also be used in the exposed positions on siege-engines.

Size of Forces

The size of armies would be dictated by the nature of the campaign, logistical considerations dependent on the distance to be covered and nature of the terrain (apparent in the Egyptian operations and campaigns in mountainous or desert regions), the speed at which the army was required to muster (records exist of the campaign proceeding before the muster was complete due to the urgency of the situation) and the number of troops which could be spared and not tied down in other parts of the empire. Ashurnasirpal II records an army of 50,000 while his father in 885 BC mustered 1351 chariots. In 842 Shalmaneser III had 2002 chariots and 5542 cavalry of a total force of 120,000. Sargon II records that he stationed the 'left *turtanu*' in Kummuhu with a force of 150 chariots, 1500 cavalry, 20,000 archers and 10,000 other infantry. A report concerning a review of the *sab sharri* stationed in the region of Zamua, carried out on royal instructions, lists a small force of 1430 men. It consisted of the following:

10 chariots

10 horse teams for the chariots

97 cavalry mounts

11 chariot-drivers

12 'third men'

30 messengers

53 'chariot-men'

Total: 106 chariot troops

161 cavalrymen

130 'chariot-men'

52 other troops of unknown type

Total: 343 'chariot-men'

181 camp-followers and other personnel including; servants, tailors, butlers, victuallers, bakers, household personnel, scribes, cooks and donkey drivers.

360 Gurray troops

440 Itu'aya troops

This is stated to be only part of the forces of the province, the rest being still to arrive.

Mobilisation

The institution of the *kisir sharruti* meant that the king did not have to await full mobilisation of the *sab sharri* before commencing a campaign. Esarhaddon records an occasion when he did not waste time with any of the normal preparations for a campaign but went forth in the cold winter month of Shabat. These actions would be required against sudden and unexpected events such as rebellions or invasion. Campaigns of conquest required careful preparation ready for the campaign season. The main army would set forth from Assyria to be joined by the contingents from the provinces as it went. Provincial governors laid up supplies in their provinces in case the king's expedition should pass through. Troops on active service, whether *kisir sharruti* or *sab sharri*, could be kept in the field for long periods, as one letter records that a cavalry unit had not been given leave for three years. Service in regions such as Egypt and Babylonia might well require such long periods without relief.

The Assyrians created advance assembly and supply points near to the regions into which campaigns were frequently mounted. One such was Kar-Shalmaneser, a crossing-point on the Euphrates. Like Kar-Shalmaneser, (formerly Til-Barsip), these might be fortified royal cities of the previous rulers of conquered regions, and had been garrison cities and supply depots in their time. These military bases were called *birate*.

The Royal Courier System

Among surviving Assyrian documents are numerous letters sent by military officials and provincial governors to the king, reporting in detail on such matters as troop dispositions and state of readiness. This enabled the king to plan military campaigns very carefully and react quickly to events. Messages were carried by mounted messengers along planned routes. These messengers travelled in 20-30 mile stages, perhaps with a cavalry escort. In difficult terrain or bad weather conditions foot runners may have been used.

BABYLON 1126-539 BC

The period following the reign of Nebuchadnezzar I (1126-1105 BC), who inflicted a major military defeat on the Elamites, is rather dark and disordered. Several dynasties passed, but few great kings. Border wars with Assyria continued, and sometimes Assyrian kings, such as Tukulti-Ninurta II, Shalmaneser III and Shamshi-Adad V, mounted major campaigns into Babylonia, extending Assyrian political influence over Babylon, but not conquering it. During the 11th century BC large numbers of Aramaeans settled in Babylonia, forming tribal districts and becoming a constant source of disorder in the following centuries. In 728 BC the unstable situation in Babylonia led to Tiglath-Pileser III making himself King of Babylon. Henceforth, Assyrian kings ruled Babylonia themselves or, as a sort of protector, through a native ruler who met their approval. There were, of course, numerous revolts, usually involving the anti-Assyrian Aramaean and Chaldean tribes, supported by Elam. Esarhaddon's attempt to form a sort of dual monarchy of Assyria and Babylon, ruled by his two sons, Ashurbanipal and Shamash-shuma-ukin, failed when the latter also rose in rebellion against Assyria.

The Chaldeans

The Chaldeans had been in Babylonia at least since the reign of Shalmaneser III. Like the Aramaeans, they were also organised into tribal 'houses' (*bitu*), each under a sheikh. These were located in the marshy regions of Southern Babylonia, near the border with Elam, and comprised the Bit-Dakuri, Bit-Yakin and Bit-Amukani. The Chaldean sheikhs were powerful enough to seize the throne of Babylon and rebel against Assyria. One of the most serious rebellions was that of Merodach-Baladan (Marduk-apla-iddina, 721-710 BC, and again in 703 BC), of the Bit-Yakin tribe. He was a dangerous and persistent enemy of Assyria. Ashurbanipal became King of Babylon himself (as Kandalanu) following the revolt of his brother, but in the confusion that followed his death, another Chaldean, Nabopolassar (Nabu-aplu-usur, 625-605 BC) took the throne of Babylon. The Assyrian Empire collapsed in the face of the combined attacks of Nabopolassar and his allies, the Medes under Cyaxares.

The Neo-Babylonian Empire

Under Nebuchadnezzar II (604-562 BC) the Babylonians created an empire that encompassed nearly all of the previous Assyrian empire. The Egyptians, who had attempted to prevent this and had assisted Assyria, were pushed back from the Euphrates and as far as their own borders, but attempts to conquer Egypt were not successful. The Medes had pressed as far as Lydia, and the Babylonians constructed a wall near Sippar, where the Tigris and Euphrates flow close to each other, as a defensive measure against them. Nebuchadnezzar was followed by three kings who ruled amid internal disorder, until Nabonidus was placed on the throne by a coup d'état. He failed to save his kingdom from an easy conquest by the Persian king, Cyrus the Great, in 539 BC.

Military organisation during this period was probably very similar to that of Neo-Assyria and had probably been extended into Babylonia by the Assyrians. The *ilku* obligation existed in some form as it did in Assyria. Babylonian forces included chariotry, cavalry and infantry, including 5000 *qurubuti* on the Assyrian model, supplemented with light troops, especially archers, provided by the Aramaeans and Chaldeans. These were available in large numbers and the Babylonian kings seem to have attempted to improve their effectiveness by issuing them with shields and spears. The basic unit was the *kisri* commanded by the *shaknu*.

CANAAN AND SYRIA 3200-1700 BC

Little is known about military organisation in the period preceding the Amorite settlement and the emergence of the Hyksos state. Canaan was occupied by nomadic tribes whose organisation is hinted at in the Egyptian story of Sinuhe. The tribe was ruled by a chieftain who could prove his right to rule with a demonstration of his prowess as a warrior, and defend his position in the same way or with the aid of a champion. He was supported by a personal retinue known as *henkhu*, to the Egyptians, and probably related to the Hebrew *hanakim*. There were also fortified cities (one is shown under attack in an Egyptian tomb scene at Deshashe), of which Sodom and Gomorrah provide famous examples. A battle fought by these cities, leading the forces of a coalition of cities in the Dead Sea region against a Mesopotamian army, is recorded in Genesis. Unfortunately the opposing kings cannot be identified in Mesopotamian records. The Egyptians periodically mounted campaigns into this region and many city-states and tribes are mentioned in the Egyptian 'execration-texts' (magical curses placed on enemies). These mention tribal chiefs and their retainers, such as the Sutu, and cities, such as Byblos, Ullaza and Askelon. To the north, there were more cities and stronger states. Along the coast there were ports in contact with Egypt, trading in timber and receptive to Egyptian culture. In the Syrian hinterland were cities like Ebla, organised on the Sumerian model.

Ebla was very populous, well-organised and clearly an important power. It possessed an army and engaged in warfare with Mari. It eventually fell to Naram-Suen. The Amorites established powerful states in this region, among them Yamkhad and Qatna. In the south at this time, Amorite political and military organisation (described under the sections on the Old Babylonian and Assyrian Kingdoms), had also taken root. A federation of Canaanite princes formed the Hyksos Empire which extended its control over Northern Egypt.

THE HYKSOS

It is now generally accepted that the Hyksos were not a migrating horde of 'chariot-nomads' sweeping through the Near East and conquering Egypt by virtue of new weapons alone. Hyksos is a corruption of the Egyptian term *Heka-Kheswet*, meaning 'Foreign Rulers'. This name had been applied to Canaanite princes before this time. Knowledge of chariot warfare together with associated developments in the military field had already filtered into Syria and Canaan from Hurrian and Mesopotamian sources.

A large number of Hyksos personal names survive which define them as rulers of Canaanite, rather than Hurrian origin who ruled over Southern Palestine and Northern Egypt supported by many lesser chieftains and Egyptian provincial nobles.

Egypt did not fall to a sudden invasion. The Hyksos take-over progressed by stages. The 13th Dynasty held power when, in 1720 BC, the Hyksos took advantage of the weakening central authority and seized the capital of Egypt's northern *waret* (department). This was Avaris (*Hut-Waret*) in the Eastern Delta. Hyksos chiefs accompanied by retinues of foreign troops began to take over the Delta. Native resistance held out for some time at Xoïs, but the rule of the 13th Dynasty receded to the South.

By 1674 BC the Hyksos had appointed an overall chieftain, the first of a line of 'Great-Hyksos', called Salatis. In 1674 he seized Memphis from the Egyptian King Dudimose. Southern Egypt was reduced to vassaldom, garrisons were placed in 'advantageous positions', and Avaris became the Hyksos capital.

Manetho, a Ptolemaic Egyptian historian, states that Salatis maintained a garrison of 240,000 (exaggeration!) well-armed troops at Avaris. He came there in summer to 'train them on manoeuvres and so strike terror into foreign tribes'. It is tempting to view this as a garbled memory of the creation of the first chariot corps in Egypt. Graves of foreign soldiers have recently been excavated at Katana-Qantir, now believed to be the site of Avaris.

Salatis was followed by Yak-Baal and then Khyan who styled himself 'Embracer of Regions'. In his reign trading contacts extended throughout the Near East, and the Hyksos state became an important world power. Apophis was the first of the Great Hyksos to adopt an Egyptian personal name. The Hyksos Kings made great efforts to appear as legitimate Pharaohs. They embraced the local god of Avaris, *Set*, (the Egyptian counterpart of *Baal*). An arrogant ultimatum sent by Apophis to the Theban king, Seqenenre-Tao, sparked off a war of liberation. Skenenre 'The Brave' met his death in battle against Apophis. His son, Kamose, continued the war by reducing the Egyptian supporters of the Hyksos and probably recaptured Memphis. His younger brother, Ahmose I, besieged and took Avaris and pushed on into Palestine where he reduced the stronghold of Sharuhen.

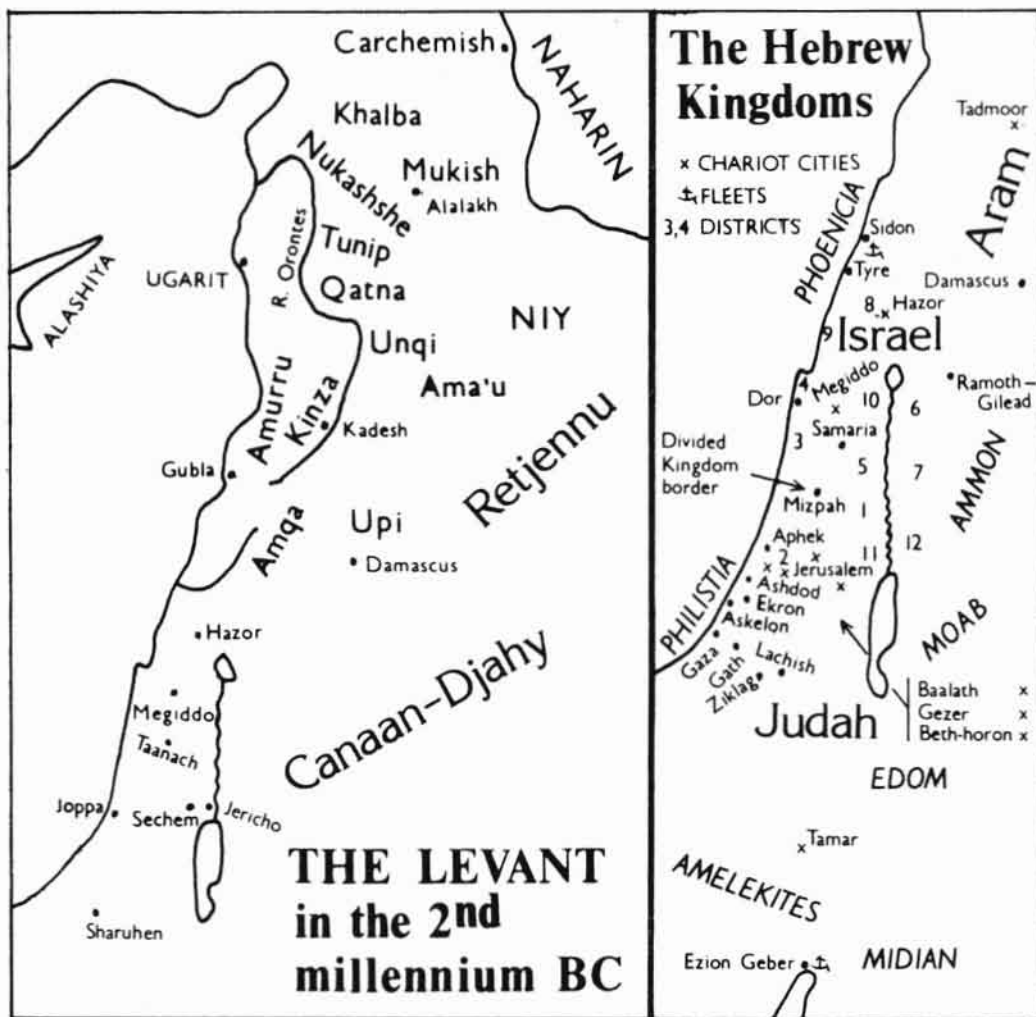
Although the wheel and the horse were already known in Egypt, it was the Hyksos who introduced chariotry as a wing of the armed forces. If the threat made by Kamose that he would 'take over the chariotry' was actually carried out by Ahmose, then the New Kingdom chariot corps may well have been built up from a nucleus inherited from the Hyksos.

The forces available to the Hyksos state would have included a central body of chariotry and foreign troops belonging to the 'Great Hyksos' ruler based at Avaris. These would be augmented by the personal retainers of the lesser Hyksos chieftains. The foreign element would be backed up by the local troops of Egyptian provincial nobles who supported the Hyksos, and who bore the brunt of the fighting against Kamose.

Culturally, the Hyksos were related to the Amorites and Canaanites.

CANAAN AND SYRIA 1700 — 1200 BC

The ancient name 'Canaan', denoted the region from Gaza to Lebanon. *Retjennu* was a general term for Syria and Palestine. Another term used by the Egyptians for Palestine was *Djahy*. Politically this area was divided into many city-states, each ruled by a king or *melik*. The terrain varied greatly. The cultivated plains and valleys in which the cities stood were separated by hills covered by cedar forest or scrub. To the east lay the Syrian steppe, inhabited by nomadic tribes who frequently penetrated into the cultivated lands. Important states included Amurru, Kinza (Kadesh), Mukish (Alalakh), Ugarit, Gubla (Byblos), Nukhashshe, Tunip, Qatna and Khalba (Aleppo).



War between city-states was commonplace, as were the ravages of nomadic Bedouin and *'Apiru* (*Habiru*). The great powers of Egypt, Mitanni and Hatti made use of these local conflicts to extend their spheres of influence. Canaanite rulers would also attempt to play-off the great powers against each other to further their own ambitions. Aziru of Amurru was adept at this during the reign of Akhenaten (1379-1362 BC).

Canaanite armies relied mainly on high-quality chariotry, provided by a social elite of noble chariot warriors, the *maryanna*. This term is ultimately derived from an 'Indo-European' word meaning youth or hero. *Maryanna* evolved in Canaanite society following the introduction of chariot warfare at the beginning of this period. The origin of this institution is probably to be found among the Hurrians of Mitanni. Mitannian military practice had considerable influence on Canaanite warfare and there was a strong Hurrian element in the population, especially among *maryanna*.

The *maryannu* was a professional chariot warrior who possessed sufficient wealth to maintain a two-horse chariot and the associated armour and equipment. The source of this wealth was a land holding carrying an obligation to serve the king. A *maryannu* would also possess such retainers as a driver, grooms and a small number of foot-soldiers or 'runners'. *Maryannu* status was generally hereditary, initially being conferred by the king. It is possible that *maryanna* could be provided by merchants and craftsmen as well as landed nobility. Rulers possessed a personal retinue of elite *maryanna*. The term *ne'arin* occurs in Ugaritic texts, in Egyptian texts as a reference to Canaanite enemies and later as a Hebrew term for elite soldiers. A force of *ne'arin* who rescued Ramesses II at Kadesh could have been allies from Amurru. This term probably refers to elite *maryanna*.

Most of the ordinary infantry were conscripted from the peasantry, or *hupshu*. They were free citizens who owned land but were liable for conscription for work or war. In the Amarna letters infantry are referred to by the Akkadian terms *sabe shepi*, *sabe bitati*. Pictorial evidence suggests that infantry were usually lightly equipped archers or spearmen. They took second place to chariotry and acted in support of them, in contrast to Egyptian tactical thinking. Elite units of infantry acted as royal guards, like the 'Royal Archers' of Piryawaza of Damascus.

Canaanite princes could supplement their forces with Shaasu or Sutu Bedouin, and '*Apiru*, or garrison troops provided by their imperial overlords. '*Apiru*, or *Habiru*, was a term long used for a class of freebooters and outcasts including outlaws, fugitives, desert nomads and even some settled people. The similarity of the name to that of the Hebrews has aroused much debate. The term may well have been applied to them by the Canaanites and gave rise to the name Hebrew. These bands were also known as *habbatu* (bandits) and 'Dusty-Ones'. They were undoubtedly rugged and fierce but also unreliable and treacherous. '*Apiru* were often employed as mercenaries, Piryawaza of Damascus could count friendly Sutu and '*Apiru* amongst his forces, but non-aligned '*Apiru* posed a considerable threat to the Canaanite cities. '*Apiru* bands could be quite well-equipped and might even include chariotry.

One of the main occupations for the forces of Canaanite city-states would be curbing the activities of '*Apiru* and desert nomads. Some of these bands could be quite large and dangerous. A band of Sutu recorded in archives from Alalakh contained 1436 men, 80 of these were charioteers and 1006 were *shananu*, probably a type of archer. The city of Alalakh itself could only muster 31 *maryanna* out of a male population of around 1200 and the surrounding 22 villages with populations varying from 11 to 500. One village fell to a Sutu force of 17 infantry, 7 charioteers and 4 *mashkinu*-troops, while 2000 *habiru* captured Zallul, on the Euphrates north of Carchemish. An '*Apiru* chief posed such a threat to the old adversaries, Shuwardata of Hebron and 'Abdu-Heba of Jerusalem, that they united and even received 50 chariots to assist them from Accho and Achshaph. Milkilu of Gezer asked the Pharaoh to provide chariots to protect his land against '*Apiru*. Perhaps chariots were particularly effective at pursuing and rooting out '*Apiru* raiders.

Such bands provided a refuge and potential supporters for political fugitives like Labaya (who made himself ruler of Sechem with their aid) and Idrimi (who fled to them with only his chariot and a groom and ended up as ruler of Alalakh).

Sherdanu mercenaries are mentioned at Byblos and Ugarit.

The Egyptian Empire in Canaan and Syria

By the reign of Amunhotep III Egyptian control had been firmly established in Canaan and Southern Syria. Unlike Nubia which was administered as a Southern extension of Egypt, the Egyptians did not interfere with the long established arrangements of the Canaanites. Their main concern was to ensure a regular flow of tribute and the exclusion of any rival power from the region. To achieve this end, garrisons were set up at Ullaza, Sharuhin, Sumera and Irqata, and administrative centres at Gaza and Joppa. The area was governed by an Egyptian 'Overseer of All Foreign Countries' (the counterpart of the Viceroy of Kush). Each city-state was supervised by an Egyptian *weputy*, a sort of political officer or 'resident', called a *sokinu* by the Canaanites.

Imperial protocol demanded that Canaanite kings be referred to as *khazanu*, 'headman' or just *awelu*, 'man', of such-and-such city (use of the word *melik* was considered impertinent by the Egyptians). Local rulers were allowed much freedom of action to defend themselves and indulge in warfare with each other, as long as they acted out of loyalty to Pharaoh. They were not slow to use this excuse to obtain material assistance from Egypt.

Egyptian garrison troops in Canaan consisted of infantry, usually Egyptian or Nubian archers, and chariotry. Garrison forces were small; Megiddo and Gezer required only 100 men, other cities as few as 50. Byblos once requested as many as 600 men and 30 chariots while Piryawaza required 200. Local rulers were constantly requesting the Egyptians to send more troops to assist against rival cities and '*Apiru*. The Egyptians may sometimes have taken a cynical view of these requests.

Garrison troops seem to have been allocated on an annual basis; vassals often complain that if the Pharaoh does not send 'archers' this year, he would lose territory to his enemies.

Egyptian garrisons were often a menace in themselves to their hosts. Officers indulged in corruption and troops became drunk and disorderly. They might even pillage the palace of the local prince if their rations were not forthcoming.

Ugarit

This information derives from the palace archives of Ugarit (modern Ras Shamra) situated on the Syrian coast. Many of the terms appearing in these texts are related to Akkadian, Egyptian and Hurrian military terminology, and demonstrate the great interchange of military ideas in this region. The organisation they portray is probably relevant to most of the states of Syria during this period.

Ugarit was an important mercantile state deriving its wealth from sea and land commerce. Until the mid-14th century BC it fell within the Egyptian sphere of influence, but later became an ally of the Hittites.

Forces comprised an army and navy. The navy was important to a coastal state like Ugarit, and was probably well-developed. It could be used to support land operations and also fight battles at sea. Ugarit was sometimes subjected to seaborne raids by pirates like the Lukka. The Ugaritic fleet may have been enlisted by the Hittites when they required naval forces.

The army was under the command of the prince who constituted a *resuti*, 'subordinate ally' when forming part of the army of a major power. Fully-equipped troops, *sabu nagib*, consisted of infantry and chariotry. Units were commanded by officers called *mur-u*, but unit sizes are not known. *Mur-u* seem to have been connected with land holdings. Some *mur-u* belonged to special units such as the 'Officers of the Crown Prince'.

The chariotry were commanded by the *akil narkabi*, 'Chief of Chariotry'. The main strength of the chariotry were *maryanna*, 'noble chariot warriors'. A sort of 'household chariotry' was provided by the '*Maryanna of the King*'. The term *ne'arim* occurs at Ugarit, probably referring, as elsewhere, to elite chariotry. The *maryannu* was the commander of the chariot. Another chariotry soldier was the *kizy*, 'groom' who may have ridden in the chariot and was responsible for three horses (presumably two for harnessing to the vehicle and one spare). The *tjennen* may have been another crewman, possibly an archer. It is possible that Ugarit used three-man chariots on the Hittite model. Ugarit was a wealthy state and could muster a large chariot force numbering 1000 chariots.

Infantry included palace guards, troops who patrolled the countryside, and troops recruited from the peasantry, known as *khepetj* (a version of *hupshu*), or *awilu namu*. Among troops who cannot be clearly defined are the *med-jergelem*, possibly archers, and *aweli imitti*, probably spearmen, (the *imittu*-spear is known from the Old Babylonian period). Some troops may have worn corslets or *tiryana* (related to the Akkadian term *sariam*). Ugarit was destroyed at the time of the Sea-Peoples' disturbances. Official correspondence between Ugarit and Alashiya (Cyprus) (dating to shortly before this happened) state that the Ugaritic forces had all been despatched to help the Hittites and that seaborne raiders had appeared off the coast.

THE HEBREWS

Initially the basic divisions were those of tribe or clan. These rallied to the call of the acknowledged leader. Within these divisions smaller units were formed according to the decimal system, with leaders of 100's and 1000's. All males over 20 years old were considered the fighting strength. Leaders had to select the troops needed for certain tasks from among the general muster of tribesmen. Forces were divided shortly before the battle, according to the requirements of the situation. When Joshua was attempting to oust the Bethelites from the ruins of Ai, his scouts estimated that 3000 men would be enough. When the first attack failed, Joshua was forced to use the whole tribal host in a feigned flight with a small group of picked men to move in behind the enemy. In the face of a large raid by Midianite and Amalekite nomads, Gideon mustered tribesmen from Asher, Zebulun, Naphtali and Manasseh. Gideon planned a night attack and needed to separate a force of stealthy warriors. He observed how the tribesmen went to drink at a water-hole and picked those that lay down to drink. These men knew that they were most vulnerable at such times and were clearly experienced in nomadic-style warfare. Gideon obtained 300 such men whom he subdivided into three parties. They were to approach the enemy camp from three sides while the rest of the tribesmen were to block the enemy's escape route. Further evidence of the improvised nature of tribal warfare comes from the same action in which Gideon had to alert the tribes of Ephraim to block the escape of the enemy across the fords of the Jordan. However, they were not impressed at being warned at such a late stage.

Not all the tribesmen rushed to the call of their leaders with the same enthusiasm. In order to muster enough men to relieve Jabesh-Gilead from the Amalekites, Saul threatened to kill the oxen of anyone who did not turn up. As the new king, Saul was establishing his authority to call out the tribal levy. As the Hebrews became united and organised under a single king a more permanent military organisation developed. Saul created a force of 3000 *ish bahur*, 'chosen men', with whom he seized Gibeah from the Philistines. On this occasion 1000 men were detached under the command of Saul's son, Jonathan.

David's Military Organisation

David inherited a system based on the muster of tribal levies in time of war common to many Near-Eastern states, although most, unlike Israel, supplemented and strengthened these levies with chariotry and regular soldiers.

Israel's militia was organised into units according to a decimal system under elected 'valiant men', *is hayil*, who as commanders, *sar*, led units of 1000 (*a'laphim*), 100 (*me'eth*), 50 and 10. The militia were recruited at musters by the tribal chief, or *nasi*, and assigned to their individual *me'eth* in peacetime, and possibly received some rudimentary training. There were various tribal specialities with certain weapons and styles of fighting. The Benjaminites for example were considered good at archery and slinging. The Benjaminites of Gibeah could muster 700 *ish bahur*, or 'picked men', who 'were left-handed; every one could sling a stone at a hare and not miss'. The Gadites were swift and fierce, the Judeans used spear and buckler, and the tribesmen of Zebulun were competent with all weapons and able to keep rank.

The pressures of constant warfare made it necessary to appoint overall leaders and ultimately led to the establishment of a monarchy. King Saul came to maintain a personal semi-regular army of 3 *a'laphim* of *ish bahur* in his household, and David, when he fled from Saul's service, acquired a personal following of his own. This band was perhaps typical of what the Canaanites would call '*apiru* or *habiru*, consisting of "... everyone that was in distress and everyone that was in debt and every man that was discontented'. David's retinue eventually numbered 600 men or 6 *me'eth*, and to escape from Saul he entered the service of the Philistine prince Achish of Gath, who placed his contingent in a border outpost to suppress nomadic raiders such as the Amalekites. When Saul met his death in battle with the Philistines at Gilboa, David seized the opportunity to make himself King of Israel.

David used his band of followers, known as *gibborim*, or 'mighty men', as a core around which to build his military organisation. From these were selected an inner elite of officers called 'The Thirty'. The tribal levy was organised into 12 divisions totalling 24,000 men. Each division was to stand in readiness for one month in rotation. The commanders of the divisions were appointed from among the Thirty. This meant that part of the tribal levy was always under the direct control of the king and available immediately to face any national threat.

David formed a foreign bodyguard of 'Cherethites' and 'Pelethites' probably recruited from Philistines and Cretans settled on the coast of Southern Canaan.

Israelite forces were mainly infantry until the reign of Solomon. Consequently Hebrew commanders had always been wary of the Canaanite and Philistine chariotry. They usually attempted to fight in terrain that was unsuitable for chariot tactics. When David defeated Hadadezer of Zobah and his allies from Damascus, he captured 1000 chariots but ordered the horses to be 'houghed' except for 100 spans. Obviously David only had need of, or means of supporting, a small force of chariotry.

Solomon's Chariotry

Solomon had sufficient wealth to organise and maintain a chariot corps. Horses (at 150 shekels each) were purchased from Egypt, the Neo-Hittite states and the Aramaean states of Syria; chariots (at 6000 shekels) were bought from Egypt. In this way a force of 1,400 chariots and 12,000 chariotry personnel (referred to as 'horsemen') was established. They were stationed in special chariot cities and a reserve was kept at Jerusalem. The figure of 12,000 seems large compared to the number of vehicles. There would have been two, possibly three, crewmen to each vehicle and the figure probably also includes runners and grooms. There may even have been replacement crews and the chariotry may have been accompanied by cavalry. Perhaps some of the runners were mounted (the mounts could then double as spare chariot horses). Developments such as these were taking place among the Neo-Hittites and Aramaeans and in Assyria, leading to the development of true cavalry. Solomon built stables in the chariot cities with a total number of stalls to house 40,000 (probably 4,000) horses. Stables dating to the reign of Ahab have been excavated at Megiddo. They contained space for 450 horses. Assuming that each vehicle required two horses plus one spare, we arrive at a figure of 150 chariots stationed at Megiddo. This could represent a three-squadron formation, each squadron comprising 50 vehicles.

In order to supply the court and the chariot cities (which were also 'store' cities), Solomon divided his kingdom into 12 provinces of equal productive capacity, each controlled by a *nesib* official. Each province supplied the king and the stables for one month of each year in rotation. It seems that this system did not extend to Judah or that region provided some other service which is not known.

The chariot cities were probably chosen for their strategic importance and would be located on borders or major military routes. Apart from the king's central reserve at Jerusalem the chariot cities probably included: Megiddo, Hazor, Gezer, Tadmor (later known as Palmyra), Hamath-Zobeh, Beth-horon, Baalath and Tell Qedah.

At Karkar in 853 BC Ahab led a contingent of 2000 chariots and 10,000 infantry (his was the largest chariot contingent). It is possible that Solomon's organisation continued into Ahab's reign, or was developed by him, as 12 chariot cities with stables of the same size as those at Megiddo would give a total of 1,800 chariots. The further 200 could be provided by the king's central reserve, the *ne'arin*.

THE PHILISTINES

The name Philistine, and ultimately Palestine, derives from the Peleset, one of the 'Sea-Peoples'. Weapon finds suggest that some Sea-Peoples were already established in Canaan as garrison troops under the Ramesside Pharaohs. The origin of the Philistines probably dates to the repulse of the great land onslaught against Egypt in the time of Ramesses III. With the Egyptian frontier barred to them, the invaders carved out a territory for themselves around the five cities of Ashdod, Askalon, Ekron, Gath and Gaza. The Tjekker settled on the coast to their north and possibly a small group of Cretans to their south. The Philistine cities were each ruled by a prince, but they usually acted in concert and met in a council called the *sarney*. They gradually began to assimilate Canaanite culture and methods of warfare. Their attempts to exert authority over most of Canaan naturally brought them into conflict with the Hebrews. The Philistines seem to have adopted chariotry on the Canaanite model; at Mount Gilboa the Israelites were shot down by arrows from the pursuing Philistines. For campaigns into enemy territory the princes mustered their forces at Aphek. Advance positions might be set up from which the surrounding area could be ravaged. At Michmash the Philistines divided their forces into three columns for this purpose and placed a rearguard to cover their escape route through the narrow pass. Like the Hebrews, the Philistines were also menaced by nomadic raiders. In order to suppress them and watch the frontiers, they established settlements of auxiliaries such as David's *gibborim*, at Ziklag.

PHOENICIA AND CYPRUS 1200-539 BC

The Phoenician ports recovered from the Sea-Peoples' attack, but the population now included large enclaves of Sea-Peoples. The Egyptian 'Report of Wenamun' describes this state of affairs and mentions that Dor, for example, was ruled by a prince called Tjekker-Ba'al, and that Tjekker fleets from these enclaves were still interfering with trade in these waters in the 11th century BC. Sea-Peoples had also settled in Cyprus, and it is interesting to note that on an ivory plaque from Enkomi, runners dressed exactly like Peleset are shown following the chariot of a Near-Eastern style *maryannu*. The city-states of Phoenicia did not have the same military strength on land as their powerful Neo-Hittite, Aramaean and Israelite neighbours, but their real strength lay in their fleets. A Neo-Hittite relief from Karatepe, Assyrian reliefs of Sennacherib and the Til-Barsip paintings all depict warships that are clearly equipped with rams. The Assyrian sources show biremes which have rowers on the lower deck and soldiers on the upper deck, which is protected by a gunwale on which round shields are mounted. The ram in the Til-Barsip example is clearly shod in bronze. These sources probably show Phoenician ships which would have been available to the powers which could control the Phoenician ports, and indicate the level of naval development reached by the 8th century BC. The first land power to make use of such forces was Solomon, who formed an alliance with Hiram of Tyre, enabling him to keep a naval force at Ezion Geber where it could dominate the Red Sea, commanding not only important trade routes but Egypt's eastern flank. Ashurbanipal was later to use the fleets of 22 of his Phoenician vassals to approach Egypt from her weak northern flank. The Phoenician contingents recorded at the battle of Karkar may illustrate the weakness in land forces. They contain few or no chariots and mostly small numbers of infantry. Unable to compete with strong inland states, Phoenician states naturally employed their navies to expand westwards into the Mediterranean. The control of these states, which included Aradus, Byblos, Sidon, Tyre, Accho, Irkate, Arvad, Usanata and Shian, was of great strategic advantage and also great economic value. Lacking strong land forces, these cities relied on withstanding sieges in order to survive, perhaps counting on supply by sea. Some cities were actually situated on islands separated from the coast, such as Arvad. The Assyrians had to reduce these by construction of siege moles.

At the time of the Assyrian Empire, Cyprus, or Iadnana as it was known in Assyria, was divided into several city-states. These were Edi'il, Kitrusi, Pappa, Silli, Kuri, Tamesi, Nuria, Sillu'ua, Qarti-hadasti and Lidir. Cyprus fell

under the control of Assyria following the conquest of the Phoenician states begun by Tiglath-Pileser III and completed by his successors, becoming tributary under Ashurbanipal. Later, Cyprus was to fall for a time within the sphere of influence of the Saite kings of Egypt.

ANATOLIA AND THE HITTITE EMPIRE

Early Anatolia

Little can be said of the military organisation of this area before the Hittite Empire. The rich tombs found at Dorak, Alaca Huyuk and the Pontic region demonstrate the existence of several principalities. From around 2300 BC the mineral wealth of this area had attracted the attention of Akkadian and Assyrian merchants. Assyrian kings sponsored the establishment of trading colonies, called *karum*, among the city-states of central Anatolia. There were about ten small principalities in this area including Dukhumid, Wakhshushana, Khurum and most importantly Kanesh, where the chief *karum* was situated. These states may have been ruled by a single 'Prince of Princes'. Relations with the Assyrians were friendly and the natives profited greatly from their trade. No doubt military ideas from Mesopotamia filtered into Anatolia along the same trade routes. The natives were known as the Hatti, but there was already an intrusive element in the population who were later to emerge as the Hittites. The Hittites traced their origin to a King of Kussara, Pithanas, who conquered Kanesh, and his son Annitas who made it his capital around 1750 BC. The Hittite language was descended from the tongue spoken in Kanesh and the name of the older inhabitants was adopted as the name of the Hittite state. The founder of the Hittite state was considered to be a king of Kussara, Labarnas, who extended his rule to the sea. It was during this period that knowledge of the two-horsed chariot filtered into Anatolia. A text from the reign of Anittas mentions a body of 1,400 men and a unit of 40 chariots.

The Old Hittite Kingdom

Labarnas's son, Hattusilis, campaigned against the Amorite states of Syria, reaching the Euphrates before being killed in the war against Yamkhad (Aleppo). Mursilis I completed his conquests and went on down the Euphrates to sack mighty Babylon, an event which shook the Near East. This empire was lost under successive weak kings and had to be re-established by Suppiluliumas I.

Little is known about military organisation in this period except that a change was taking place in Hittite society with the development of a sort of 'feudal' aristocracy perhaps connected with the introduction of chariot warfare on the Mitannian model. Previously the king was served by a body of fighting men and officials called the *pankhus*. Chief officials were often kinsmen of the king and held military commands as in later times. There was a body of high-ranking officers known as the *khantezziyas* and a royal bodyguard called the *meshedi*.

THE HITTITE EMPIRE

In his '1st Syrian war', Suppiluliumas I (1380-1346 BC) conquered the states of Khaleb (Aleppo), Alalakh, Tunip and Nukhashshe in Northern Syria, which brought him into conflict with the Mitannian Empire. In his '2nd Syrian war', Suppiluliumas marched through Mitanni, plundered the capital and crossed the Euphrates south of Carchemish, to arrive in Egyptian territory. The Mitannian state began to collapse. This was followed by the 'Hurrian war', lasting six years, in which Carchemish fell, an Egyptian attack was defeated and Mitanni was finally destroyed (partitioned between Hatti and Assyria). Suppiluliumas died of a plague brought back by his soldiers from Syria. He had established Hatti as a foremost world power, which she remained until her collapse during the Sea-People disturbances around 1200 BC.

The Hittites were great imperialists. They were also highly competent in the arts of war and international diplomacy. War was interpreted in legal terms. A formal ultimatum was issued before force was applied. Vassal states were bound by treaties which usually contained the following provisions: The ally was required to support the Hittite king on campaign, never give away information to an enemy, rush to the aid of the Hatti-land in time of attack or revolt, (and in return could request Hittite assistance in similar circumstances), accommodate and supply Hittite garrisons and treat them as friends, and had to extradite any fugitives (or dissidents) fleeing from Hatti. The friends of the Hittites were to be considered the friends of the ally state, and similarly, Hittite enemies were their enemies. An annual tribute in gold or silver had to be paid to the Hittite king.

Soldiers were sworn into the army by an oath and the army had to be ritually cleansed before setting out on campaign. This was achieved by marching between two posts, with one half of a human sacrifice tied to each post. It was assumed that no evil could pass through such a barrier. Perhaps this was an archaic ritual restricted to an early period of Hittite history.

The supreme commander was the king, but command could be delegated to other members of the royal family. Beneath the king were governors of conquered territories, including royal princes set up as kings in frontier regions, and vassal rulers who led their own contingents. Commanders of smaller divisions were provided by the lesser nobility.

Unit organisation followed the decimal system, with commanders of Tens, Hundreds and Thousands.

The chariotry were probably the most formidable part of the Hittite army. The Hittites learned the art of training horses to the yoke from the Hurrians. A Hittite version of a Hurrian training manual has actually been found, written by an expert called Kikkuli.

A military aristocracy, maintained by land grants, formed the chariotry and are probably comparable to the *maryanna* of Syria and Mitanni. *Maryanna* were certainly included in the allied contingents supplied by Syrian vassal states. The Kadesh inscriptions mention *maryanna* of Naharin (the Egyptian name for the region of Mitanni), Carchemish, Keshkesh (Kaska?) and Dardany, (so the Egyptians clearly classed some Anatolian chariotry as equivalent to *maryanna*).

Military service was connected with land ownership. Estates were held from the king with an obligation to serve. Lesser classes of land owners were the 'Weapon-men', or 'Tool-men', who were probably craftsmen rather than soldiers. Terms of service for this class were called *sakkkhan*, and the term for obligation (a concept pervading Hittite society from vassal princes downwards) was *iskhuil*, or *ilkum*.

Such obligations were taken very seriously by the Hittites and their allies, and were expected to be upheld to the full.

The Kadesh inscriptions and other Egyptian sources mention troops called *teher* or *tuhuyeru*, possibly a Mitannian term. They formed an important part of the Hittite forces and the allied Syrian contingents. A king of Tunip once employed 329 of these soldiers. At Kadesh the two large bodies of infantry numbering several thousands are called 'fighting *tuhuyeru*', which might imply that it was a designation of status rather than a completely military term. There were also 'tuhuyeru of chariots' and *tuhuyeru* shield-bearers at Kadesh, so they were not exclusively infantry. A 'Leader of *tuhuyeru*' is found among the slain Hittite notables listed by the Egyptians.

Order of Battle of the Hittite Empire at Kadesh, 1300 BC

It is possible to reconstruct the Hittite order of battle at Kadesh from the Egyptian records. It must be an example of one of the largest armies ever raised by the Hittites.

The chariotry and infantry of the King of Hatti.

These were supported by Allied Contingents including infantry and chariotry from:

- Naharin — mainly comprising the former kingdom of Mitanni but including territory west of the Euphrates.
- Arzawa — located in Central Anatolia. Naharin and Arzawa were *kuirwana* states, enjoying preferred status in the Empire.
- Dardany — located in North-Western Anatolia, included *maryanna*. Possibly associated with the Dardanoi of Homer.
- Keshkesh — probably the Kaska of Northern Anatolia, included *maryanna*.
- Masa — located in Western Anatolia.
- Pitassa — located in Central Anatolia.
- Arwen — or Arawanna, in Anatolia, (possibly 'Ilion', the Egyptians rendered 'l' with the sign for 'r').
- Karkisha — located in South-Western Anatolia.
- Lukka — situated along the southern coast of Anatolia.
- Kizzuwatna — located in South-East Anatolia (Cilicia) providing *maryanna*.
- Kedy — located north of Syria.
- Mushanet — location unknown.
- Inesa — location unknown.
- Inenes — location unknown.
- Carchemish — located on the Euphrates in Syria.
- Ugarit — located on the Syrian coast.
- Nukhashshe — located in Northern Syria.
- Khaleb — Aleppo (modern Arabic 'Halb') in Syria.
- Kadesh — the land of Kinza, on the Orontes.

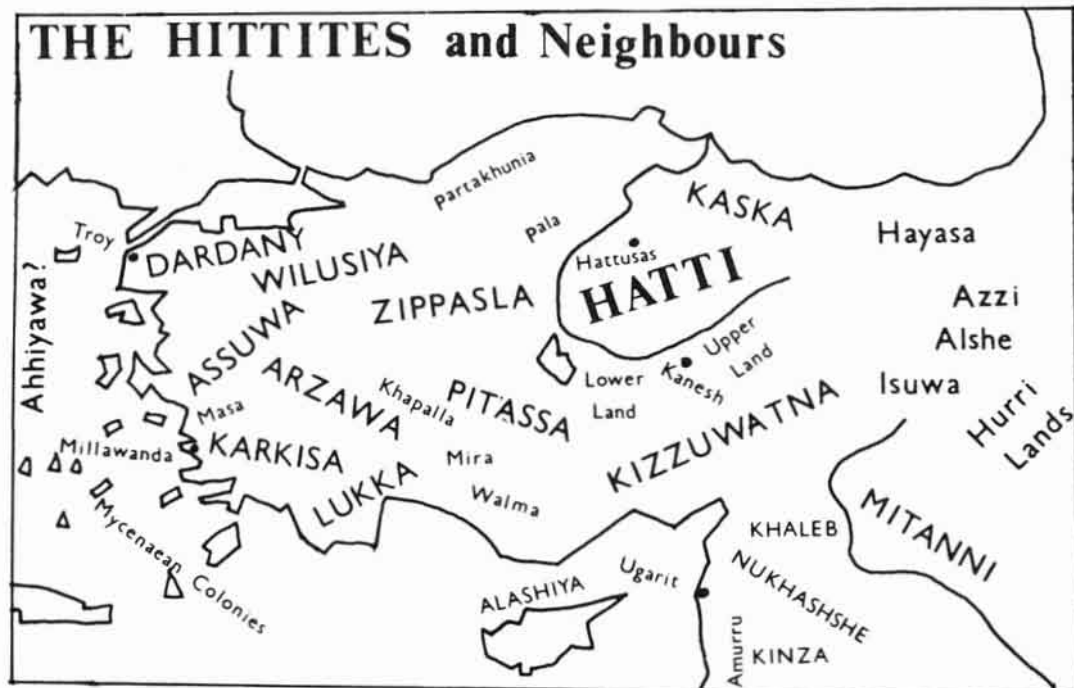
The close-order spearmen, called 'fighting *tuhuyeru*', formed two large formations of 18,000 and 19,000 men. The hieroglyph for '10,000' was missed on early translations, leading to some sources quoting 8,000 and 9,000.

2,500 chariots, organised into four bodies, formed the first wave of chariotry, consisting of contingents from Hatti, Arzawa, Masa, and Pitassa, and included chariot runners. A reserve or second wave of 1,000 chariots was formed from the contingents of Arzawa, Masa, Arwen, Lukka, Dardany, Carchemish, Karkisha, and Khaleb, each led by their own commander, and Hittites led by brothers of Muwatallis.

In addition to these there were troops manning the battlements of Kadesh, and some Anatolian infantry positioned between the city and the stream that surrounded it (now the El Mukadiya brook).

Sea Power

For naval operations the Hittites probably called upon the fleets of Ugarit, Alashiya or the Lukka. A naval battle is recorded in the reign of Suppiluliumas II at the end of the 13th century BC. The Hittite fleet engaged the ships of Alashiya at sea and destroyed them with fire. Either Alashiya was attempting to break away from Hittite control, or other enemies were operating from Alashiya, possibly Sea-Peoples.



Anatolian States

Ahhiyawa was a major rival of the Hittite Empire. Relations between the two powers are more fully described in the section on Achaeans. Although the Achaeans seem to be the most likely candidates for identification with this state, it has also been interpreted as part of Western Anatolia under Achaean influence, Crete, Rhodes and Troy. This state possessed chariotry, could mount seaborne raids and had its own vassal states such as Millawanda.

The Kaska were the most dangerous and persistent enemies of the Hittites. They lived in the highlands north of the Hatti-land and possessed no central government with which the Hitties could treat. The terrain presented problems for Hittite armies which emphasised use of shock chariotry. Guerilla warfare along the frontier was endemic, consisting of raid and counter-raid which intensified whenever the main Hittite forces were occupied elsewhere. A line of forts was therefore built along this frontier. The seriousness of the threat from this quarter may be demonstrated by the remarkable concentration of power Muwatallis placed in the hands of his brother Hattusilis who had special responsibility for this region. Hattusilis led a contingent from this command on the Kadesh campaign.

Arzawa was a powerful state and centre of a group of states including Mira, Khapalla and the Sheka-river land, known as the Arzawa states. This principality was often a source of trouble to the Hittites. It was Uhha-Zitish of Arzawa who originally persuaded Millawanda to switch allegiance to Ahhiyawa, a cause of future conflicts. Mursilis II defeated Uhhi-Zitish with the assistance of Sharre-Kushuke of Carchemish. He was a loyal ally of Hatti and

Mursilis's right-hand man for control of the Syrian states. This demonstrates that Syrian contingents could be called upon to serve in Anatolian campaigns. Further west lay Assuwa. The Assuwan army consisted of 10,000 infantry and 600 'Lords of the Bridle' (probably chariotry).

Wilusiya, Taruisha, Arwen (Arawanna) and Dardany are all states or peoples that can be placed in north-west Anatolia and seem to have some connection with Troy (Ilion). The case for Wilusiya might be further reinforced by the mention in Hittite records of a king called Alakhshandush ('Alexander' being another name of Paris in Greek sources). This name occurs in a treaty made between Wilusiya and Hatti.

THE SEA PEOPLES

During the 13th century BC, for reasons not yet fully understood, Aegean civilisation collapsed and many of the great citadels were destroyed. These events did not come suddenly but occurred over one or two generations. At the same time in Western Anatolia there are hints of political strife among the vassals and neighbours of the Hittites. The Hittite Empire was on the defensive against Assyria and, particularly, against the Kaska. The central authority however was weakening. Egypt was friendly and Merenptah even despatched 'grain in ships to keep alive the land of Kheta (Hatti)', for a famine was afflicting that land. Pirate raids were becoming an increasing cause for concern in Alashiya (Cyprus) and at Ugarit.

Egypt was suffering from repeated Libyan incursions, probably forced out of their homelands as conditions became drier. This later affected Egypt as Nile levels dropped and the economy became unstable. In 1231 BC a massive Libyan attack was beaten off by Merenptah. With the Libyans had come the first wave of 'Sea-Peoples'; the Ekwesh, Teresh, Lukka, Sherden and Sheklesh.

Egyptian records state bluntly what happened in the years that followed; 'the Northerners were disturbed in their islands. All at once nations were moving and scattered by war. No land stood before their arms, from Hatti, Kode, Carchemish, Arzawa and Alashiya, they were wasted'. It appears that two main bodies of people were on the move; one proceeding across Anatolia from the north-west, the other advancing along the coast of Anatolia from the south-west. Part of the latter group were travelling by sea.

Correspondence found at Ugarit indicates that Hittite forces attempted to halt the onslaught in the Lukka lands, but were taken by surprise by attacks from the north in which the capital, Hattusas, was destroyed. Response to Hittite requests for assistance had stripped their Syrian allies of any means to defend themselves. Letters from Ugarit addressed to Alashiya, state that the Ugaritic army was sent to the Hatti-land and never returned, while their fleet had sailed to the Lukka-lands. Meanwhile enemy ships had appeared off the coast at Ugarit and shortly afterwards the city was destroyed.

According to the Egyptian account, the two groups joined up in Syria and set up a camp in the land of Amurru which they desolated. The combined forces comprised the Peleset, Tjekker, Sheklesh, Denyen and Weshwesh. They planned a simultaneous assault on Egypt by land and sea. As they advanced southwards 'the fire was prepared before them', possibly a reference to scorched-earth tactics.

Only by determined national effort were the onslaughts repulsed on the very frontiers of Egypt. The main strength of the land assault may have been the Peleset who recoiled from the Egyptian border to carve out a state and become known to later history as the Philistines. Other Sea-Peoples dispersed throughout the Mediterranean leaving their tribal names as a record of their final places of settlement.

Sherden

The Sherden or Shardana are first recorded in the 14th century BC when they were known in Byblos. Early in the reign of Ramesses II some were caught while raiding the Delta and were placed in the Egyptian army. The characteristic helmet is of a type known in the Near East and the Aegean. The long sword is possibly a development of a type of levantine dagger rather than an Aegean type. One possible place of origin is the Syrian coast north of Ugarit. After the attack on Egypt some of them settled in Cyprus and eventually arrived in Sardinia, giving their name to the island.

Lukka

The Lukka appear among the Hittite allies at Kadesh and are well known from the recorded correspondence between Ugarit and Alashiya. They had a reputation as early as the 14th century BC as pirates and raiders. A king of Alashiya

once complained that they seized a small town from his land every year. The original lands of the Lukka were on the southern coast of Anatolia, and their name may be preserved in the later name, Lycia.

The Lukka were themselves subjected to raids from further west. A document from Hittite archives called the 'Tawaglawas letter' was a request from the Hittite king to the king of Ahhiyawa to take action concerning his vassal, Piyama-radius, who was raiding the Lukka from Millawanda (Miletus).

Ekwesh

The Ekwesh or Akawasha, as the name would suggest, may be Achaeans, and both Ekwesh and Achaeans may be connected with Ahhiyawa. One of the main arguments against the identification of the Ekwesh with Achaeans is that the former are considered to have been circumcised. This idea stems from the fact that the Egyptians cut off the hands of the slain instead of the phalli as was done to the uncircumcised Libyans. This is probably a misinterpretation of the reason behind the Egyptian practice (see the comments on this in the section on New Kingdom organisation). The hands of the Ekwesh were taken because they were light-skinned. The phalli of the Libyans were taken as the only feature that reliably distinguished them from Egyptians.

Teresh

The Teresh or Tursha may be the Taruisha mentioned in a Hittite text, and their original home could have been in north-western Anatolia. There may even be a connection with Troy, the Tyrrhenians and the Etruscans; the latter were anciently considered to have come from Anatolia.

Sheklesh

The Sheklesh are possibly associated with the Sikels of Sicily, who were thought to have come via Italy following the fall of Troy. They were probably originally an Anatolian people.

Peleset

The Peleset may be connected with the Pelasgians in the Homeric list of Trojan allies, and more certainly with the Philistines. The Hebrews thought that they had come from Caphtor, which is probably Crete (Egyptian *Keftui* and Akkadian *Kaptara*). Crete was probably only a stage in their migration, their real origin being somewhere in Anatolia. The characteristic head-dress is associated with both regions. Philistine names are linguistically related to an ancient language of western Anatolia, (Luwian).

Tjekker

The Tjekker eventually settled on the coast of Canaan north of the Philistines. The 'Report of Wenamun', an Egyptian text dating to the end of the New Kingdom, mentions Tjekker pirates still active in the vicinity of Dor.

Denyen

The Denyen probably came from the land of Danuna, located somewhere north of Ugarit and possibly as far as South-Western Anatolia. In the 8th century BC a Hittite successor state bore the name Danuniyim, whose king claimed descent from Mepesh (Mopsus), a hero who migrated through Anatolia around the time of the Trojan war. There may even be a connection with the tribe of Dan among the Hebrew tribes and the Danaeoi, a name applied to some of the Achaean forces in the Iliad.

Weshwesh

The Weshwesh or Washwasha, are one of the most obscure of all the Sea-Peoples. They may have come from the land of Wilusiya located in Anatolia, so a connection with Ilion cannot be ruled out.

THE NEO-HITTITES AND ARAMAEANS

The Neo-Hittites

The Neo-Hittite kingdoms were situated in Syria and Eastern Anatolia. These regions, formerly in the Hittite Empire, were overrun by Anatolian peoples during the Sea-People disturbances following the collapse of the Hittite Empire around 1200 BC. It is interesting to note that one Neo-Hittite king, Azitawadda of Adana (known to Assyria as Que), refers to his people as Danuna in one inscription. These states used the as yet undeciphered Hittite hieroglyphic

script instead of the Hittite cuneiform used under the Empire. By the 12th century BC, the following states had come into existence; Tabal, a confederation of city-states in the Taurus mountains, Kammanu, the capital of which was Melid (Malatya), Kummuhu (Commagene), Carchemish, Arpad, Ya'diya (Zinjirli), Hattina, also known as Unqi, Luhuti (Aleppo), Hamath, Til-Barsip, Adana (Que) and Guzana (Tell-Halaf). In the 11th century BC, Aramaean tribes settled in Southern Syria, founding the kingdom of Aram, centered on Dimasqa (Damascus), and Aramaean dynasties established themselves in the Neo-Hittite states of Arpad, which became Bit-Agushi, Ya'diya, which became Sam'al, Til-Barsip, which became Bit-Adini, and Guzana, which became Bit-Bahiani.



By the reign of Ashurnasirpal of Assyria, these states became increasingly under threat of Assyrian conquest. Sometimes several states combined to resist Assyrian invasions, but during the intervals of respite between such attempts they often fought each other. The Bible and Assyrian annals show that Israel and Damascus could combine against Assyria, but when the threat passed, were soon at war with each other again. Ashurnasirpal conquered the states east of the Euphrates, and Shalmaneser III conquered Carchemish, Hattina, Bit-Adini, and Sam'al. However, Hamath and Damascus defied Shalmaneser for the rest of his reign, supported by numerous Phoenician city-states and other allies, Shalmaneser's main offensive being halted in the major battle of Karkar. Damascus finally fell to Adad Nirari III (810-783 BC) in alliance with Zakir of Hamath, who records that Hazael of Aram had made war against him in alliance with Bargush, Que, Umq, Gurgum, Sam'al and Melid. Following this, a succession of weak rulers in Assyria allowed the Neo-Hittite states of Kammanu, Gurgum, Sam'al, Hattina, Arpad, Carchemish, Kummuhu and Que to be won over by Sarduris II of Urartu. This coalition was defeated in Kummuhu by Tiglath-Pileser III, who went on to re-conquer Northern Syria and commence the annexation of the Neo-Hittite and Aramaean states of Syria as provinces of the Assyrian Empire. This process was complete by 700 BC.

Good representational evidence from these kingdoms, supported by Assyrian records, show that armies contained well-developed chariotry and cavalry, infantry spearmen, including regular guards and light spearmen, archers, slingers and camelry. The good chariotry, cavalry and spearmen perhaps represented the Neo-Hittite element while the

light troops and camelry represented the Aramaean contribution. These states could field numerous and powerful armies, especially in coalition, and the forces of Hamath and Damascus were effective on their own. The annals of Shalmaneser III record the contingents making up the allied army that fought against him at Karkar in 853 BC in some detail. The overall commander was Hadaezer of Damascus, and the order of battle is set out below:

Damascus; 1,200 chariots, 1,200 cavalry, 20,000 infantry.

Hamath; 700 chariots, 700 cavalry, 10,000 infantry.

Israel; 2,000 chariots, 10,000 infantry, (the number of chariots seems to be confirmed by Israelite textual and archaeological evidence).

Que; 500 infantry.

Musri; 1,000 infantry, (perhaps a minor state in the Taurus Mountains rather than Egypt).

Irqatana; 10 chariots, 10,000 infantry.

Arpad; 200 infantry.

Usanata; 200 infantry.

Shian; 30 chariotry, 10,000 infantry.

The Arabs of Gindub; 1,000 camel-riders.

Ammon; 1,000 or more infantry, (the figure is incomplete).

It will be seen that some of the allies sent only token forces or could only supply small numbers of chariots. These may represent minor city-states of Phoenicia, and other states who perhaps believed Hadaezer would be defeated, and did not wish to lose their entire army with him. Losses were indeed heavy.

The size of Hattina's army is demonstrated by Shalmaneser III's record that he slew 2,900 of her veteran soldiers and took a further 14,000 prisoners in one battle. In Shalmaneser's campaign against Hazael of Damascus, Hazael lost 16,000 infantry, 1,121 chariotry and 470 of his cavalry at the battle of Mount Senir (841 BC). If the figures given for the forces of Damascus at Karkar represent the whole of her army, then at Mount Senir Damascus lost most of her infantry and chariotry, but, quite credibly perhaps, more than half of the cavalry escaped. Some idea of unit sizes may be gleaned from records of troops recruited by the Assyrians into the *kisir sharruti* from Neo-Hittite states. Sargon recruited 200 chariots and 600 cavalry from Hamath, and from Carchemish, 50 chariots, 200 cavalry and 3000 infantry (formerly the guard troops of Pisiri of Carchemish). These figures would suggest groupings of 50, 100 or 200, assuming that the Assyrians wished to recruit existing units. They may, of course, simply reflect Assyrian unit sizes.

One of the most interesting features of the list of contingents at Karkar is that both Damascus and Hamath have the same number of cavalry in their armies as chariotry. This would suggest some connection between chariots and cavalry. The nature of this connection is unclear but possible explanations might be (1) social — the horseman being a 'retainer' of the charioteer, (2) economic — one chariot and one horseman being maintained by a land-grant or individual as a single unit or contribution, (3) logistical — equal numbers being the result of stabling or supply arrangements, (4) organisational — perhaps the cavalry formed part of the chariotry units, or the horsemen originated as runners riding spare or outrigger chariot horses, and (5) tactical — cavalry may have been required to operate with chariotry, and a 1:1 proportion was considered best. In all probability, more than one of these reasons may lie behind this arrangement. This may represent a stage in the process of development of cavalry from chariotry, similar to that taking place in Assyria and possibly also Urartu and Iran. It should be borne in mind that in Assyria cavalry at first operated as a chariot crew, as if such a crew had actually been re-trained, thus creating a direct relationship between the numbers of cavalry and the potential number of chariots. Neo-Hittite sources usually show chariot crews comprising two men, although one source shows a crew of four (in a very heavy chariot), while contemporary Assyrians, Egyptians and earlier Hittites used three-man crews. Perhaps the third crewman had become a cavalryman. The Neo-Hittites may have considered that a combination of two-man, two-horse chariots and cavalry was a better tactical arrangement than three-man chariotry. In the figures of troops levied from Hamath and Carchemish by Sargon (several generations later than Karkar), the numbers of cavalry do not equal chariotry. This may be because the Assyrians considered cavalry to be more useful than chariotry and the cavalry may now have become completely separate, unless the connection was never completely inflexible.

The Aramaeans

The *Ahlamu* are first mentioned in the El Amarna correspondence and later as one of the allies in a confederation, together with Hurrians and Hittites, defeated by Shalmaneser I of Assyria (1274-1245 BC). By the 11th century BC they were established in Syria forming the states of Aram-Zobeh, Aram-Bet-Rehob, Aram-Ma'akah, Geshur, Aram (Dimasqa-Damascus), Bit-Agushi, Bit-Adini, Bit-Bahiani, and large numbers settling to the east of the Euphrates

forming Aram-Naharaim. The prefix '*Bit*' means 'house' of a particular tribal ancestor and indicates the tribal origins of these Aramaean dynasties. The Aramaeans seem to have originated as nomadic tribes in Babylonia. The first phase of their expansion began with raiding, probably inspired by famines. They seized key trading centres and became settled into states. From 1150 to 746 BC they are found allied with Babylon against Assyria. During the 11th and 10th centuries BC Assyria found herself under serious pressure from the Aramaeans and the long period of warfare against them is often considered to have contributed to Assyria's martial outlook. From 800 BC Aramaeans began settling heavily in Babylonia, usurping cultivated land.

Tiglath-Pileser III claimed to have conquered some 36 tribes in Babylonia who were settled along the Tigris and Euphrates as far as the Gulf of Persia. These included the following tribes (the six most important being listed first); Itu'aya, Rubu'aya, Hamarami, Zi'tau, Puqudu, Gambulu, Luhautu, Hatallu, Rubbu, Nasuni, Gulusu, Nabatu, Ramqu, Rummulutu, Adile, Kipre, Ubudu, Gurumu, Huderu, Damanu, Dunanu, Nilqu, Ubulu, Qubi, Marusu, Haga, Hagarami and Tu'muna. Many Itu'aya served in elite units of the Assyrian army.

Information about these tribes comes mainly from Assyrian sources. They were numerically smaller than the Chaldean tribes, had absorbed less of Babylonian culture, and possessed fewer cities. They were also not as unified as the Chaldeans. Each tribe had up to six *nasikati*, or 'sheikhs', each over a sub-tribe or clan. These 'sheikhs' were appointed and could be deposed easily. The economy was based on animal husbandry and agriculture. They kept horses, mules, oxen, sheep, goats and camels.

Tiglath-Pileser III mentions an Aramaean 'battle-line', but usual tactics were feigned flights and ambushes. The Aramaean dynasties of Syria, however, took over much more sophisticated military systems.

PHRYGIANS AND LYDIANS

Little is known about Central and Western Anatolia following the fall of the Hittite Empire. Greeks began to settle heavily on the Aegean coast, and the interior seems to have been dominated by three main peoples, the Phrygians, Karians and Lydians. The Phrygians are probably to be identified with the Mushki, who are recorded in Assyrian sources. Tiglath-Pileser accused them of invading Assyrian territory with 20,000 men, and inflicted a defeat upon them. They may have been moving into Anatolia during his time. Rulers going by the name Mita (Midas?) figure on several occasions, and as Tiglath-Pileser mentions five kings, they may have comprised a group of tribes.

Ashurbanipal described the Lydians, or Ludu as they were called by the Assyrians, as 'a distant land whose name my ancestors had not heard'. Assyrian annals record that Gyges of Lydia sent troops to help Psamtik I drive out the Assyrian garrisons from Egypt and defeat his Egyptian rivals. Because of this Ashurbanipal refused to help Gyges against the invading Cimmerians who sacked Sardis, killed Gyges and devastated Lydia. Ardys, the son of Gyges, subsequently begged to be made an Assyrian vassal. The Cimmerians swept through Phrygia at around the same time, devastating that country also. Its king, Mita, committed suicide. Lydia survived to fight against the Medes and the Persians, and fell to the latter under Cyrus the Great. Herodotus records these events and mentions that the Lydian cavalry were the cream of their army. The Persians held them in such respect that they countered them with baggage camels manned by soldiers in order to upset the Lydian cavalry horses. The Lydians then dismounted to continue fighting on foot. At this time the cavalry were armed with a long spear and Greek armour. Croesus had tried to form an alliance with Babylon and Sparta and revive the old alliance with Egypt, but Cyrus did not allow him enough time to receive any assistance from these quarters. Lydia fell in 547 BC.

URARTU

Urartu originated as a number of small states in the highlands north of Assyria, situated around lakes Van and Urmia, centering on Mount Ararat. During the 9th century BC these states were welded into a single nation. Shalmaneser III of Assyria conducted campaigns in this region against a certain Arame who was attempting to unite these states. Although Arame was defeated and his territories ravaged, a new, strong, dynasty, founded by Sarduri I, achieved power in Urartu. The inhabitants of the land were perhaps related to the Hurrians, and referred to the dominions of their king as Biainili (the kingdom of Van). Sarduri was able to extend his rule over the region of Nairi, bordering directly on Assyria.

Urtu was rich in metals and a source of good horses. A formidable army, with an especially good cavalry arm was developed, and Urtu soon emerged as a serious rival to Assyria. The Urtian kings attempted to exercise influence over the Neo-Hittite and Aramaean states of Syria, and through them to the ports of Phoenicia. Eastwards, their influence extended into Mannai and yet deeper into Iran. These developments brought Urtu into direct conflict with Assyria. The influence of Urtu reached its peak during the reigns of Menua (810-786 BC) and Argishti I (786-764 BC). Urtian kings also sought to subdue regions to the north; Argishti I reached lake Sevan in the Caucasus, while Sarduri II (764-735 BC) led expeditions as far as Qulha (Colchis). Urtian arms thus penetrated into the lands of the *Ishqiylu*, the Urtian name for the Scythians. This expansion had benefited from a period of Assyrian weakness, but, with the accession of Tiglath-Pileser III, Assyria went onto the offensive and Sarduri II and his Neo-Hittite allies were defeated in Kummuhu (Commagene). Soon, the Urtians became preoccupied with events on their northern borders, for the *Gimirrai* (Cimmerians), and following them the Scythians, were approaching their land.

Assyrian frontier posts followed these proceedings closely. On one occasion, the young Sennacherib, then a governor of the northern frontier, reported to his father, Sargon, that the Urtians had been severely defeated. Their king, Rusa I (735-714 BC), had escaped, but his commander-in-chief, Kakkadanu, had been captured and three units wiped out in a battle with the Cimmerians. Sargon took advantage of his neighbours' weakness and marched through Mannai, Media and around lake Urmia, defeating the combined forces of Urtu and Zirkutu at Mount Simirra. This removed Urtu as a serious rival to Assyria.

Urtu, however, had borne the brunt of the Cimmerian advance. Eventually the Cimmerians diverted westwards into Anatolia, while the Scythians went east into Media. Urtu survived as an independent stage until absorbed by the Archaemenid empire, now on friendly terms with Assyria, and concentrating on developing her natural resources to a high degree. A region of Urtu, called Arme, may have been the distant origin of the later Armenia.

The kingdom of Urtu was divided into provinces, each ruled by a governor drawn from among the royal family or the nobility. Each provincial capital was also a fortified citadel, garrison and storehouse. The army was made up of the contingents of these provincial governors augmenting the king's standing army of 5500 *qurubuti* in the reign of Rusa II. The army consisted of chariotry, good-quality cavalry and infantry. Chariots were drawn by two horses and crewed by two men. Sargon II of Assyria was most impressed with the horsemanship of the Urtians and stated in his annals that their horse trainers were unmatched in their skill with cavalry horses. Horses were specially bred for the Urtian royal contingents and trained never to break rank, whether advancing, wheeling or retreating. Cavalry were equipped with spear and shield, chariotry with spear and bow, and infantry consisted of archers and spearmen.

From the reign of Rusa I, Cimmerians and Scythians were probably employed as mercenaries. Scythian arrowheads have been found in Urtian arsenals as well as embedded in the walls of their fortresses. Sargon II records that the citadel of the wealthy Urtian province of Mount Kispal was garrisoned by the most reliable troops in Urtu. Unfortunately the name of this contingent is incompletely preserved.

ELAM

Ancient Elam comprised two geographical regions, the plain of Susa and the highlands of Anshan, and 'King of Anshan and Shushan' was a title of the king, or *sunkir*, of Elam. He ruled over a confederation of provinces, each under a governor, or *ishshak*. Occasionally the king was known by the title *menir*, meaning a sort of 'feudal overlord'. During the Old Babylonian Period (1900-1600 BC) the ruler was known as the *sukkal-makh* or 'grand-regent' who controlled Anshan directly, while under him were two *sukkals*, 'regents', of the provinces of Susa and Simash. Elamite history can be divided into three main epochs, separated by dim periods of two or three centuries. The Old Elamite Period (2700-1500 BC) from which most of our knowledge of Elamite political organisation derives, a Middle Elamite Period (1300-1120 BC) brought to an end by Nebuchadnezzar of Babylon's victory at the river Ulai, and a Neo-Elamite Period (800-639 BC) when a renewed and powerful Elamite state emerged, challenging Assyria until finally overthrown by Ashurbanipal.

The Elamites were traditional enemies of the Mesopotamians since the first mention of Elam in Sumerian records. Sumerian rulers and later, Akkadians, campaigned in Elam and the Elamite region of Awan. Occasionally, Elamite forces invaded Sumer. Little is known about Elamite forces at this period. Drawings on pottery dating to before 3000 BC portray virtually naked archers, and archery was always to feature as a stronghold of Elamite armies. A relief dating to around 2150 BC depicts archers with beards, pigtailed and wearing kilts.

During the 'middle period' Elam emerged as a major military power. Shutruk-Nahhunte expanded and consolidated an Elamite empire, made Susa its capital, and led a devastating invasion of Babylonia. His son, Kutir-Nahhunte, was established as governor of Babylon, which became an Elamite vassal. His successor, Shilkhak-In-Shushinak, campaigned further north, conquering Aramaean tribes between the Tigris and the Zagros mountains, penetrating Assyria almost as far as Ashur. The Elamite army at this time was clearly very effective, but again little is known about them. A bronze relief from Susa depicts archers wearing helmets and short tunics, and bearing bows and curved daggers.

Much more is known about the army during the Neo-Elamite period, due to the Assyrian reliefs of Ashurbanipal and Assyrian royal records. Elamite armies, sometimes led by the king himself, or by generals, frequently entered Babylonia to support rebels against Assyria. The Elamite armies are described as 'numerous' and accompanied by many allies. These included, on different occasions, Chaldean tribes, Arab tribes such as the Gambulu, and in one instance the Iranian region of Parsumash. Texts and reliefs provide evidence of chariotry (heavy chariots with crews of four drawn by four mules, and light, two-mule types), cavalry armed with spear and bow and numerous archers, and there are references in Assyrian annals to 'heavily-armed archers' and 'men of the bow and the shield'. The Assyrian account of the battle of Halule refers to large numbers of Elamite nobles slain, and they may have provided the chariotry. The Elamite troops depicted in reliefs are remarkably uniform in appearance and equipment, and part of their forces may have been organised as a regular standing army, perhaps augmented by provincial forces. Towards the end of the period Elam fell into civil war, with rival claimants to the throne replacing each other in quick succession, sometimes friendly, sometimes hostile to Assyria, until Teumman (Tempt-Humban) was defeated by Ashurbanipal. Elam became divided and was finally overthrown in a further campaign by Ashurbanipal. Eventually the region was taken over by Kurash (Cyrus I) of Parsumash (Persia).

THE AEGEAN

The Minoan Thalassocracy

Between about 2000 BC to around 1400 BC Crete was the dominant power in the Aegean. Political and economic administration was centered on the 'palace'. The most important palaces were probably Knossos, Phaistos, Mallia, Khania and Zakro, but there were many smaller palaces. The island may have been divided into several states, or comprised a federation over which Knossos held sway. Cretan power probably extended to parts of the Greek mainland and Aegean islands, as suggested by the legend of Theseus. The figure of Minos might suggest that there was a single king. Thucydides records the existence of an empire of Minos, based on sea power.

Crete was well positioned to exercise control over trade routes from the north and west to the Levant and Egypt. Their main rivals at sea would be the Mainlanders, the coastal states of the Levant and Anatolia, Cyprus and Egypt. There was certainly trade between Crete and the Levant and Egypt but it seems that relations with these areas were always friendly.

The fact that the palaces lack fortification suggests internal peace and hints that defence was achieved by control of the sea. Frescoes depict seaborne assaults on settlements and warships equipped with rams.

The most serious threat to Cretan power was destruction by earthquake. The Cretan palaces were destroyed around 1700 BC and later rebuilt. They were destroyed again around 1400 BC. The cause is generally considered to be natural rather than military. However, such events would so seriously disrupt the state as to allow rival powers to take advantage of Cretan weakness. The massive volcanic explosion that occurred at Santorini around 1400 BC would have created a tidal wave which could have wiped out most of the Cretan fleet and its ports.

The Achaeans or Mycenaeans

After the Santorini disaster, the balance of power in the Aegean passed to the mainland. Centered around the Peloponnese was a patchwork of small states. The 'Catalogue of Ships' contained in the Iliad is probably derived from an actual Mycenaean document, and indicates the number and relative power of these states in the later 13th century BC. Mycenae held a position of particular importance by this time.

As in Crete the organisation of the state centered on the palace. Interest in the military arts and the frequent occurrence of inter-state warfare is well attested by archaeology and later legend. Most palaces were fortified citadels.

Legend records several royal houses, descended from various heroes such as the 'Perseids' and later the 'Pelopids' at Mycenae, the house of Cadmus at Thebes, the 'Epigoni' who overthrew Thebes (Cadmeis) and the 'Herakleidae' who appear as rulers among the Dorians.

Achaean influence was extended to Crete, and an Achaean state was probably established there after the indigenous organisation was disrupted by the explosion of Santorini. It is possible that there was military intervention in Western Anatolia before the Trojan war. The rise of the Achaeans coincides with the appearance of the state of Ahhiyawa, or Ahhiya, in Hittite records. This state was clearly a major power whose ruler could be considered the equal of those of Hatti, Egypt and Assyria. It was also a sea power and lay in Western Anatolia or even further west. It was certainly some distance from its vassal state of Millawanda (Miletus), and there is archaeological evidence for Mycenaean colonies among the islands and on the coast of South-West Anatolia. It is difficult to adequately explain this state as anything other than the Achaeans' as a whole or at least an Achaean state. If we accept another possible location such as Rhodes or Troy, then the great civilisation of the Mycenaeans will appear to have made no impact on its neighbours in the political, diplomatic and military fields. This seems unlikely considering the well-attested trading contact.



The Hittite records are worth mentioning as there may have been military contact between the Hitties and Achaeans. Relations were friendly at first and relatives of the king of Ahhiyawa were sent to the Hatti-land to learn chariot driving. Later, around 1300 BC, the Hittites requested the ruler of Ahhiyawa to prevent his vassal in Millawanda (generally regarded as Miletus) from attacking Tawaglawas, the Hittite vassal in the Lukka-lands.

In the reign of Tuthalias IV (ascended 1265 BC) a ruler of Ahhiyawa began to interfere seriously with the states of Western Anatolia. This was Attarsiyas (Atreus?). Madduwatas was a fugitive from Attarsiyas who fled to the Hittite king. He was set up as a vassal prince in the territory of Zippasla. Attarsiyas, with 100 chariots and a force of infantry, attacked Madduwatas here. A Hittite force, despatched under a general, met Attarsiyas in battle and forced him to withdraw. Later Madduwatas began to work against the Hittites by attempting to unite the West Anatolian states in a confederation. He even fell in with Attarsiyas in raiding Alashiya.

The 'Catalogue of Ships' in the Iliad shows that for major military enterprises the Achaeans could act together in a coalition under the leadership of the most prominent state. The list of Trojan allies is probably also Mycenaean in origin. It displays only a vague knowledge of the region on the part of the compilers and would be inconsistent with the situation in a later period. The allies seem to include West Anatolian states. The Trojan War might therefore be seen as a major confrontation between an Achaean and an Anatolian coalition, a later development of the sort of hostilities recorded in the Hittite archives. The Trojan War is now usually placed about 1200 BC.

Minoan and Mycenaean Organisation

Our knowledge of military organisation is based on information gleaned from the 'Linear B' tablets. These were contemporary records compiled by the palace bureaucracy, and show that military organisation and maintenance of equipment was supervised from the palace. Individuals were under some obligation to provide equipment and render service in respect of their land holdings. Tablets were found at Pylos, Knossos and Mycenae. The tablets concerning military matters bear the title *o-ka*, possibly meaning 'units' or 'commands'. The tablets date to the period of Achaean supremacy.

Residing in the palace as the ultimate owner of the whole state was the *wanaka*, or 'king'. An important official beneath him was the *lawageta*, variously interpreted as the commander-in-chief of the army, or a civilian official. Each owned a special personal estate or *temeno*. The *pasirewe* were regional officials residing in outlying towns. They were lords within their own territory but owed allegiance to the king. They possessed a retinue, *pasirwija*, and were assisted by a council, *kerosija*. The *tereta* were landowners, owing some sort of 'feudal' service. The *morop-pas* held a 'share' of land and could hold the position of unit commander. Of the various kinds of nobles and officials, those with the most apparently military function are the *eqeta*, or 'followers'. It is certain from the Linear B tablets, that the *eqeta* possessed chariots, but there may also have been chariotry who were not of *eqeta* status, since some items of chariot equipment are listed in the tablets as 'suitable for followers', implying perhaps that the best equipment was reserved for the *eqeta*. Two other designations for troops are known; *kekide* and *kurewe*, although the exact type is not clear. It would seem likely that the *tereta* provided troops, perhaps chariotry, the *eqeta* being the elite chariotry.

Unit organisation was based on the decimal system and troops were conscripted on a regional basis. Units were known by regional or tribal designations. The Pylos tablets listing forces detailed to guard the coastline are all small units comprising multiples of ten between 10 and 110. In this case the size of the forces is probably dictated by the function, and a unit of 10 may have been the basic unit of organisation.

Infantry

The main part of the infantry were spearmen. They were originally equipped with large body-shields and long thrusting spears. The shields were large enough to conceal the bearer completely and were carried by means of a shoulder strap. This left both hands free to wield the spear. Representations of spearmen in action strongly suggest that they were drilled and fought in close formation. A fresco from Thera shows a body advancing in line.

Although ideally suited to hold off chariotry, long spears do not always require the stimulus of mounted troops to encourage their development. They were developed to improve the effectiveness of close-formation infantry against similar opponents in most historical instances. The spearmen were often well-equipped with elaborate boars'-tusk helmets. If these troops were not simply conscripted and then equipped by the state, but supplied their own weapons, they must have been recruited from a prosperous section of the community. The Linear B tablets do not mention shields and little that can be exclusively attributed to infantry (they seem to be mainly concerned with chariotry). Poorer sections of society are probably represented by the naked slingers, archers and stone-throwers shown defending a settlement from seaborne attack on the so-called 'siege rhyton', from Mycenae.

Light infantry consisted of archers, slingers and javelinmen. Well-equipped archers could operate from within the long-spear formations. Poorly-equipped archers and slingers, probably drawn from the poorest peasants and townsmen, provided skirmishers or defenders of settlements in time of emergency. Javelinmen were better-equipped and organised. A fresco from Knossos depicts a line of dark-skinned troops bearing pairs of javelins and wearing two plumes in their hair. They were probably Libyan auxiliaries from North Africa.

Whereas Minoan sources and Minoan inspired works from the mainland show long-spear troops, frescoes from Pylos, Tiryns and Mycenae dating to the period of Achaeen ascendancy depict troops with short spears or javelins and round shields.

Chariotry

Knowledge of chariot warfare arrived in the Aegean during the 16th century BC. Chariotry became a wing of the armed forces of the state, provided by a class of chariot-owning nobles called *eqeta*, or 'followers'. Many tablets deal with the muster of chariots or parts of chariots, indicating that the readiness of the chariot force was closely supervised by the palace. Men providing a complete chariot are mentioned by name only, otherwise the relevant chariot parts are listed. It is clear that many people could only supply incomplete vehicles or parts. The role of the palace administration was to organise the various contributions into a battle-ready force. It has often been assumed that the tablets represent a chariot force in a poor state of readiness which was being mustered due to some emergency. In fact it could indicate that the palace was attempting to organise an adequate and efficient chariot force from the contributions of many people individually lacking sufficient wealth to provide complete chariots.

The Knossos tablets would allow for a maximum of 400 chariots to be produced from the muster. Pylos could produce 82. Only 100 chariots accompanied Attarsiyas to Zippasla (if we assume Ahhiyawa to be an Achaeen state).

During the 13th and 12th centuries BC the design of chariots and the equipment of the crew changed dramatically. A change in keeping with the contemporary changes occurring among infantry as well. This almost certainly accompanied a change in tactics and most probably a change in the organisation of armies. This was the period in which the palace economies of the Aegean began to collapse, new peoples began to move into Greece from the north-west, and the Sea-People disturbances began in Anatolia. It seems likely that the military organisation represented by the Linear B tablets, dependent on regulation by a literate scribal class on the Near Eastern model, was replaced by something better suited to the times.

Coastal Defence

It is clear from the Catalogue of Ships that most Achaeen states had access to the sea and were capable of mounting seaborne attacks. This implies that they would have to prepare for a threat from this direction themselves and make arrangements to guard their coastlines. The Pylos tablets record a good example of such arrangements. Pylos had a long coastline to protect. The tablets date to shortly before the final destruction of the palace and have often been interpreted as last-minute preparations made in response to a new and unexpected threat. The forces, however, are small and comprise patrols or observation posts only. They probably represent normal arrangements.

The coastline at Pylos was divided into 10 sectors. Each sector was allocated a small detachment of 'watchers'. The units are always multiples of 10 varying from 10 to 110. They bear regional designations and were conscripted from local settlements. Each group had its own commander and an attached 'follower'. The latter served as a chariot-mounted courier. These outposts were too small to resist more than one or two shiploads of raiders and were almost certainly backed up by more substantial forces inland. The followers were required to report to these forces. It is perhaps more probable that the back-up force was the Pylian fleet. Tablets record the muster of rowers, and the natural harbour at Navarino bay is located near to Pylos. Over 600 rowers are recorded and each ship required 30 men (20 ships). The Thera fresco shows ships crewed by 42 men. In the 'Catalogue' Nestor of Pylos is credited with 90 ships, second only to the contingent of Agamemnon.

The preparations at Pylos are dated to the spring month of *Poroweto*, meaning 'sailing time'.

The Catalogue of Ships

The so-called 'Catalogue of Ships' and the list of Trojan allies contained in Book II of the Iliad are now often considered to be derived from a Mycenaean source. The political geography portrayed seems to belong to the context of the Late Mycenaean period rather than any later time. The 'Catalogue' indicates the number and relative power of the Achaeen states which had joined together in a temporary coalition. In the Iliad the Mycenaean Greeks as

a whole are considered to be composed of two main peoples, the Achaioi and the Danaoi. The contingents are listed below:

1. Boiotoi; under 5 leaders with 50 ships each carrying 120 men. The mention of many leaders and towns, with the notable exception of Thebes (sacked before the Trojan War) might suggest a loose tribal organisation.
2. Aspledon and Minyaeon Orchomenus; on the coast north of Boiotia, under two leaders with 30 ships.
3. Phokeeis; under two leaders with 40 ships.
4. Lokroi; under the 'Lesser Ajax', with 40 ships.
5. Abantes; from Euboea, with 40 ships. A fierce tribe described as swift, with hair falling in locks at the back and wielding ashen thrusting-spears.
6. Athenaoi; under Menesthenes, a skilled commander like Nestor, with 50 ships.
7. Salamis; under the 'Great Ajax', with 12 ships.
8. Argos and Tiryns, under Diomedes, with 80 ships. His territory included part of the Argive plain, Acte and Aegina.
9. Mycenaes, under Agamemnon, with 100 ships. His realm included the North of the Argive plain and territory along the Gulf of Corinth.
10. Sparta; under Menelaus, brother of Agamemnon, with 60 ships.
11. Pylos; under Nestor, with 90 ships. Nestor was considered a good chariotry commander who knew older tactical methods. His realm was divided into 8 districts in both the Iliad and Pylos tablets, but the names do not correspond.
12. Arcadians; enough men to fill 60 ships supplied by Agamemnon, as they knew nothing of seafaring. They were trained in hand-to-hand fighting.
13. Epeioi; from the North-West Peloponnese, under four leaders with 10 ships each.
14. Epeioi; from the Echinian Islands, with 40 ships.
15. Kephallenes; from Ithaka, Kephallenia and Zakynthos, under Odysseus with 12 'Crimson' ships.
16. Aetoli, with 40 ships.
17. Cretans; under the 'spearman' Idomeneus, with 80 ships.
18. Rhodes; 3 tribal districts under a single leader with 9 ships.
19. Syme; an Island near Rhodes, a small contingent with 3 ships.
20. South Sporades Islands; with 30 ships.
21. Myrmidones, Hellenes and Achaioi of the region around Pelasgian Argos, under Achilles, with 50 ships.
22. Four towns on the Thessalian coast under Protesilaus, with 40 ships.
23. Four towns on the coast north of Protesilaus, under Emelus, with 11 ships.
24. Four towns on the coast to the north of Emelus under Philoctetes, with 7 ships, each carrying 50 archers.
25. Thessalian plain; 3 towns under two leaders with 30 ships.
26. Thessalian plain; 3 towns, with 40 ships.
27. Thessalian plain; 5 towns, under two leaders, with 40 ships.
28. Ensenes and Peraebians of the Dodona region, with 22 ships.
29. Magnetes; from the region around Mount Pelion, with 40 ships.

The contingents are each under a single commander unless otherwise stated. Overall command seems to have been given to Agamemnon on account of him being the single most-powerful ruler.

The Trojans and Their Allies

The list of Trojan allies in Book II of the Iliad may well be derived from a Mycenaean source as it contains less detail than the 'Catalogue of Ships' and shows only a vague knowledge of regions of Anatolia. It probably dates to a time before the Greek settlement in Ionia, (which occurred before 1000 BC). Some of these allies may possibly be identified with West Anatolian states known from Hittite records. The contingents are listed below:

1. Trojans; under Hector, son of Priam. They were the most numerous force, described as good spearmen. They may be the Taruisa of the Hittite records. The name Ilion may correspond to Wilusiya, (Muwatallis once made a treaty with its king, Alakshandush).
2. Dardanoi (Dardany); under Aeneas and his two subordinates.
3. Troops from Zelia, a Trojan clan, led by Pandarus.
4. Troops from Adresteia, located near to Troy, under two leaders.
5. Troops from the Dardanelles area, under Asius.

6. Tribes of Pelasgian spearmen, from the region just south of Troy, under two leaders, (Peleset?).
7. Thraces; allies from the European side of the Hellespont, under two leaders, (Teuceri, Tjekker?).
8. 'Warlike' Cicones, also from Europe.
9. Paiones; archers from the river Axios region in Europe.
10. Paphlagonians; from the lands of the Eneti, where wild mules lived, possibly somewhere in the Pontic region.
11. Alizones; under two leaders, from beyond the river Halys.
12. Mysi; under two leaders, (Masa?).
13. Phryges; from 'remote Ascania', under two leaders.
14. Meiones; under two leaders, from West Anatolia.
15. Kares; from the region of the river Maeander, who held Miletos (Millawanda), under Amphi-machos and Nastes. Probably to be identified with Karkisa.
16. Lycii, from the region of the river Xanthos, under Sarpedon and Glaucus. Probably the Lukka.

A confederation of West Anatolian states including Taruisa, Wilusiya, Karkisa and Lukka, known as the Assuwan alliance rebelled against the Hittite king, Tudkhaliash IV. This list may represent a similar but later confederation, formed as the Hittites lost control of the area, whose main enemy was now the Achaeans.

THE INDUS VALLEY

Between 2500 BC and around 1750 BC, a civilisation flourished along the Indus river, extending for a vast area from the Punjab to the Arabian sea. The culture was fairly homogeneous and possibly comprised a single state for much of this time. The main cities were Mohenjo-Daro in the south and Harappa in the north. They may have exercised dual control unless Harappa developed as an alternative to Mohenjo-Daro, which was subjected to serious flooding. The Indus valley was in trading contact with Mesopotamia through Magan and Dilmun.

Such a vast area probably required military activity of some sort to establish control in the first place and then maintain it. The wealth resulting from well-organised agriculture and trade would have been a temptation to outsiders, and security of the frontiers would require a military organisation of some kind. Until the script is deciphered we are dependent on archaeological evidence regarding the Indus forces.

Material evidence demonstrates the existence of slingers, archers and spearmen. Side-arms included short swords, axes and maces. Some animals may have been used for war. An elephant, possibly wearing a cloth or harness, is shown on one seal standing before a manger. The principle of the wheel was understood and models of ox-carts have either two or four solid wheels and sometimes even a roof. Thus chariotry and elephantry cannot be ruled out.

TACTICAL METHODS

EGYPT

Old and Middle Kingdoms

Egyptian forces in this period were exclusively infantry. Tactics were based on the use of massed formations of close-order archers and hand-to-hand fighters. Archers formed up in lines several ranks deep. The front ranks shot from a kneeling position while those behind stood.

Troops armed for hand-to-hand combat countered the missiles with a bull-hide shield which could often be large enough to cover the bearer completely. The characteristic shape of the Egyptian shield developed around the time of the unification. It was ideally suited to allow close-order troops to form a continuous wall of shields. The flat base allowed it to be rested firmly on the ground to form a palisade (the battlements of Egyptian fortresses imitated such a palisade in harder material).

Very little in the way of battle reliefs and inscriptions have survived from these periods compared to the New Kingdom. Such evidence is a major source for tactical methods. Royal monuments such as the pyramid temples and causeways were decorated with such reliefs but were largely destroyed by later kings and the blocks were re-used. Private tombs and inscriptions can provide much detail but tend to reflect minor local activities.

Infantry tactics were probably similar to those used in the New Kingdom, since the Egyptians of that time did not fundamentally alter the traditional infantry types but developed them.

The army would be divided into left and right wings and centre. There could be a vanguard and rearguard or first line and reserve. The commander, or king if he was present, would be positioned in the centre of the first line with his retainers. Command of the rearguard or reserve was entrusted to a second-in-command with another body of retainers. This seems to have been the arrangement at Sekmem. The centre of the battle-line would be composed of close-formation spearmen and hand-to-hand fighters in rectangular columns or deep lines, supported by close-order archers in line. The flanks of the army would be formed by lighter and more mobile troops such as javelin skirmishers and foreign auxiliaries. These troops could also be detached as an advance guard and doubtless also rear and flank screens if required.

The role of the archers on the battlefield was to maintain a massive volume of missiles as the close-combat troops advanced into contact. The function of the latter was to engage the enemy and prevent their own archers from being engaged. There is no evidence for the use of mixed formations, probably because the Egyptians considered that it would strengthen neither shooters nor hand-to-hand troops and may even weaken both. By keeping the two basic troop types in separate massed formations, the close combat troops were given sufficient density to be effective and the archers could keep clear of close combat, retaining the option to maintain shooting at any enemy formation throughout the battle.

Archer formations were probably deployed between close-combat bodies, or as a screen in front (using high standards of drill to accomplish any evasive manoeuvres required).

The Middle Kingdom fortresses of Nubia display a sound understanding of the principles of crossfire and enfilade, so we can expect these principles to have been put into effect in open battle also.

In drawing up the battle-lines attention would also be given to the positions of the various grades of troops. The raw levies would be flanked and screened by more experienced troops. Retainers and shock-troops would hold the positions of greatest danger.

Amphibious Operations

Military action in Egypt or Nubia would of necessity centre around the Nile, the main line of communication. Control of the river in the area of operations would be vital to allow troops to be transported from one side to the other in order to clear both banks of enemy and ensure secure flanks for further advance. The simplest and easiest method of moving a large number of troops within Egypt would be by rivercraft. Often the King and his elite troops moved by river while columns proceeded along each bank. Cities could be cut off or relieved by sending a fleet as nearly every important point in the Nile valley was accessible by water. Consequently there were often amphibious actions accompanying sieges. Garrisons in the Nubian forts were supplied by river and elaborate arrangements were made to ensure year-round access. Covered quays linked the forts to the river bank.

Other considerations regarding the amphibious aspect of Egyptian warfare are that the prevailing wind blows upstream while the current flows northwards, and that Egypt experienced an annual inundation when large areas of the valley were submerged and shallow-draft vessels would be invaluable for communication. As work in the fields then ceased, this was also the time when most manpower was available for conscription.

The New Kingdom

Infantry Tactics

As in earlier times, archers drew up in close-order linear formations. Against mainly unarmoured or shieldless opponents, the massed volleys were sufficient to halt attacks alone. Against such foes, archers would lead the advance with close-combat troops following behind as a supporting line. These tactics are shown in use against the Libyans in reliefs in the mortuary temple of Ramesses III at Medinet Habu, Thebes.

Against better-equipped enemies the close-combat troops would be required to engage in hand-to-hand fighting. The role of the archers was then to screen the approach and 'soften-up' the opposition. Close-combat troops usually drew up in linear formations unless advancing in the vicinity of enemy chariotry, in which case they formed dense rectangular columns and were screened and escorted by their own chariotry in line abreast. Such a formation could

present a front to an attack from any direction by a simple turn and could not be burst through by a determined onslaught. The accompanying chariotry might be able to hold off enemy troops while the column deployed into battle formation. These tactics are shown being used by the Army of *Ptah* in the Kadesh reliefs.

There is no evidence for the combination of close-formation archers and spearmen in the same body during this period.

Infantry advanced at a rapid pace, often with their shields slung on their backs, leaving both hands free to grasp side-arms and a spear. In the face of enemy missiles the shields would presumably be swung round to form a solid wall and the pace would become slower and steadier. On contact with the enemy the spears were either discharged and followed up by a rush into hand-to-hand combat with side-arms, or retained to be thrust overarm. Reliefs display evidence of both practices.

Perhaps matters such as this and the arrangement of units into battle formations were the preserve of the 'Assault Officers'.

It is tempting to view the 'Greatest of Ten' as a file-leader or end-marker of a rank, depending on whether a deep column or linear formation was adopted. Each platoon of 50 could be converted from a column of 10 ranks of 5 men into a line, with a depth of 5 ranks of 10 men, by a simple turn and wheel. The Standard-Bearer could easily signal these manoeuvres, for which the typical flat standards of rectangular and fan shape were probably designed. Large scale manoeuvres by greater formations were probably signalled by the trumpet.

There are no representations of formed Egyptian close-order infantry receiving an enemy chariot charge. Such were seldom attempted. They would only be vulnerable to such an attack while unformed, such as when crossing fords and pitching camp, if surprised while strung out in column of march, or if morale and discipline gave out in the face of determined attack. However, harassment from skirmishing chariotry would impede rapid movement, rule out complex manoeuvres and reduce numbers by attrition. It was therefore necessary for the Egyptians to have their own chariotry in order to campaign in Asia. Enemy chariotry had to be prevented from curtailing the efficiency of the Egyptian infantry.

Chariotry Tactics

The introduction of the chariot during the Hyksos period added a new dimension to Egyptian tactics. The Egyptians rapidly developed their own chariot force. They acquired the relevant technology and materials from western Asia but adapted organisation and tactics to their own requirements. By the mid-18th Dynasty the chariotry emerged as a fully developed arm with its own organisation and hierarchy of command. However the infantry remained the most numerous and important part of the army. Chariotry were used to support and protect the infantry as well as adding long range and mobility to operations. This stands in contrast to the practice in Canaan and Syria, where chariotry became pre-eminent and supported by the infantry. There are good reasons for this: Egypt had a high population and manpower was always her most valuable resource. The Egyptians were long experienced in the organisation and discipline of large bodies of men as part of daily life and were naturally good at it. The basis of a professional standing army was inherited from the earlier period; it was of course infantry.

A body of well-armoured Egyptian chariotry in line abreast is depicted charging into a similar line of Hittite chariotry in reliefs of the battle of Kadesh at Abu Simbel. This provides a good illustration of a chariotry engagement. Against enemy chariotry, the Egyptians would charge towards them attempting to cause as many casualties as possible from arrows at long range, and light javelins at close range. They would endeavour to avoid coming too close to the enemy, where the heavier spears and more numerous crew of the Hittites would give them the advantage.

As vehicles would be well-spaced to avoid collision and to enable turning manoeuvres, the melee would involve interpenetration of the opposing lines. There would be much wheeling and turning as the chariots reformed for successive charges.

If the Egyptians could force their opponents to break off, they could cause heavy casualties from shooting during the pursuit. The main disadvantage to the Egyptians would be the danger of being swept away by their heavier opponents in the initial charge.

An account of Amunhotep II's prowess at archery provides an insight into Egyptian chariotry training methods. The chariot had to be driven at full gallop past copper targets set on poles and placed 12 metres apart. The chariot archer had to try and send a shaft clean through a target, or pierce it with more than one arrow. The spacing of the targets may reflect the expected frequency with which one might be approached by a *maryannu* assailant in

a chariot engagement. While the archer concentrated on shooting, his driver concentrated on driving the vehicle. This was probably regarded as being more efficient than anything that could be achieved by a single horseman at this time.

Chariot Runners

Integral to the organisation of the chariotry were the runners. These were light troops equipped with javelins or bows. As the name suggests, runners were expected to try and keep pace with the chariotry. They could perform several tactical functions such as screening the chariotry, following up a charge to despatch or capture fallen enemy crewmen, clearing and holding any terrain impassable to chariots and rescuing wounded friendly crewmen.

A body of runners following some distance behind their chariotry, could also engage enemy chariots who had passed through them and were attempting to rally for a second charge. Enemy chariotry would then be caught between the runners and returning friendly chariotry. Clashes between opposing bodies of runners could also be expected in the vicinity of chariotry engagements.

When chariotry were pursuing routed troops or charging into loosely-formed enemy infantry, they were accompanied by runners and other loose-formation troops such as Sea-People auxiliaries. This is shown in reliefs of the battle against the land onslaught of the Sea-Peoples at Medinet Habu. These troops would give greater weight to the attack. Chariotry alone would not have sufficient density to be successful and could be overwhelmed by force of numbers.

Battlefield Deployment

Egyptian commanders paid great attention to initial deployment. Many Pharaohs and commanders boast of their prowess in drawing up the 'battle-line'. The army was considered to have left and right wings and a centre. On the march a vanguard and rearguard could be detached as required to secure passage through difficult terrain.

Chariotry and loose-formation infantry were deployed on the flanks of the army while close-formation troops were positioned in successive lines in the centre.

Despite the numerous archers in the Egyptian army, tactics seldom took the form of static defence behind linear obstacles or on high ground. In battles against the Libyans, archers may have been deployed on the banks of canals, such as the 'waters of Re', or western canal, at Hatsho, but other parts of the army were used offensively. Archers do not figure prominently in the Kadesh reliefs which are dominated by chariotry and spearmen. In all battles at least part of the army was intended to act offensively. When the Libyans were halted by the volleys of the archers, chariotry were despatched to complete the rout and destroy the enemy by a vigorous pursuit. Such action would set back their opponents for years to come.

Field Armies

Each of the four field armies would be a self-contained mixed force and the Army of *Ptah* is represented as such in the Kadesh reliefs. As large garrisons could also comprise infantry and chariotry and were usually commanded by a *hery-pedjet*, a mixed *pedjet* might also be possible (in addition to a fully infantry or Chariotry *pedjet*).

On major campaigns the field armies would invade enemy territory together. They could then separate to attain different objectives, and later rendezvous at any point in order to outflank the enemy or bring overwhelming force to bear. As the Egyptian battle plan at Kadesh was made before Ramesses II was misled by the enemy, his armies appear to have been intended to act in this way against forces drawn up in the plain before the city. The Hittite ploy subverted these plans somewhat by encouraging Ramesses to try and take the city before the enemy arrived, allowing him to be cut off. However, Ramesses held out desperately, knowing that more of his forces were to arrive shortly.

The armies could advance by the same route, but spaced some distance apart, in order to give mutual support if attacked. The Kadesh inscriptions record that the armies were spaced 1 *iter* (approximately 10.5 km) apart. It is more likely that this information was lifted from an official daybook or manual than that it was worked out from the geography by a scribe. One advantage of these arrangements was that the whole force could not be destroyed by a well-delivered enemy attack. The main problem was ensuring that the armies did not become too spread out to assist each other in time. The strengths and weaknesses of this system were clearly demonstrated at Kadesh.

This was an ideal system to use against enemies who relied mainly on skirmishing chariotry. If an army was attacked and the screening chariotry were swept away, the infantry would be besieged on the battlefield. This system ensured that they would not be held up for long as another army would arrive to reinforce or rescue them. This force would contain fresh chariotry. At Kadesh the Army of *P're* could not assist *Amun* in this way as it was surprised by the Hittites and destroyed. The Army of *Ptah* was unable to assist *P're* because it was still in the wood of Rebawy and possibly not yet across the ford. It did arrive in time to be effective later on, but the *Ne'arun* were able to render immediate assistance. One of the chief functions of mounted scouts would be to inform the separate armies, should assistance be required. A distance of 1 *iter*, would be too far for them to see what was happening but was also too far away to be initially involved.

Thutmose IV records his order of march on a Nubian campaign in an inscription from Konosso. The Pharaoh advanced upstream on board ship together with his *shemsu* (retainers). The *nefru* marched on the adjacent river banks with the *nakhtu-aa* on their outer flanks. The infantry recruits were thus supported by seasoned close-combat infantry occupying the most vulnerable and exposed position. The Pharaoh was positioned where he could most easily exercise control of troops on either bank.

Naval Tactics

The reliefs of a naval battle at Medinet Habu provide an example of naval tactics against an enemy fleet, in this case that of the Sea-Peoples. The design and equipment of the Egyptian warships were obviously the result of long development, and the tactics used were planned and precise. Although many ships were requisitioned in readiness for this battle, those depicted in the reliefs are purpose-built warships. Earlier engagements against the maritime powers of Phoenicia and the Hyksos must have contributed to the development of a navy as depicted in these reliefs. The navy was a branch of the army, drawing its personnel and equipment from there and not conceived of as a separate force.

In the Medinet Habu reliefs the Egyptian vessels possess both oars and sails, unlike the vessels of their Sea-People opponents. The latter appear to use sails only and would be less manoeuvrable. It is possible that the Egyptians were deliberately trying to depict their technical superiority and represent the enemy as inferior. In many battle scenes only enemies are ever shown dead or wounded and sometimes unarmoured and without weapons. Peoples such as the Lukka may have been experienced in techniques of sea warfare, and such expertise and warships could have been acquired from Alashiya or Phoenicia.

Unlike Egyptian merchant ships on which the sails were lowered to the deck when not in use, those of the warships were raised clear of the deck. The Egyptian ships were rowed in close to the enemy ships while archers and slingers raked their decks with missiles, causing heavy loss among the crowded warriors. At close quarters, a marine positioned in the prow hurled a grappling hook into the enemy rigging. The enemy ship was then capsized as the Egyptian rowers rapidly reversed their vessel. Another method of attack was to board the enemy vessel. Marines armed with long boarding pikes fended off enemy warriors as the vessels collided. The low prow of the Egyptian ship could smash into the hull, fixing and disabling the enemy ship. They could not ram below the waterline. Javelin-armed marines boarded the vessel, supported by the shooting of archers in the fore and aft castles and a slinger in the crow's nest. The grappling hooks could be used to hold the ships together as the boarding took place.

Later Egyptian Tactics

The policy of dividing up the forces and despatching armies to different objectives seems to have continued into the Libyan period for we find Sheshonq I employing such tactics against Israel. Following the death of Solomon, the Pharaoh seized his opportunity to de-stabilise Egypt's nearest rival and potential threat. Forces were sent into the Negev to destroy Israelite outposts and cut Israel off from Ezion Geber at the head of the Gulf of Aquaba (a potential threat to Egypt's Red-Sea coast). The main army advanced through Judah to collect tribute and ultimately lay waste to Israel. This was simply a *razzia* as Egypt does not seem to have been strong enough to impose lasting control of this area.

The division of Egypt into principalities imposed constraints on the strategy adopted by Tefnakht against the Kushite king Piye's invasion. The progress of the enemy could be impeded if important cities could be fortified and held long enough to allow the contingents of vassal princes to be mustered. The success of the North in defending itself would depend on the qualities of leadership possessed by the foremost prince. Allies would soon desert to the other side if help was not guaranteed and there would always be delays in meeting threats, surrendering the initiative

to vigorous attackers, such as Piye and later the Assyrians. Piye's tactics reflect the weaknesses of his opponents in that he was always anxious to reduce enemy strongholds quickly by using siege machines or direct assault. Enemy reinforcements would be intercepted on the river and the troops were encouraged to pursue the campaign with fanaticism. Obviously Piye bore in mind the short length of the campaign season and the great length of the Nile valley.

A stela set up by Piye to commemorate his conquest describes the campaign in great tactical detail. Piye issued the following instructions to his army as to how they should conduct the war: They were not to delay in their military preparations by day or night or waste time in battles of manoeuvre. The enemy were to be engaged immediately on sight and forced to give battle. If the enemy holding a position had called up support from another city, Piye's generals were to allow them to join up. No doubt Piye preferred to destroy them in one decisive battle rather than become 'bogged-down' in a succession of sieges (which looked like happening at one point in the campaign). However if such supporting princes remained in their cities, the army was to seize the opportunity to gain ground. In battle the troops were to give priority to attacking the forces of the supporting princes and the 'Libyans and favourite soldiers' of Tefnakhte (this could be a reference to the *Meshwesh*). The intention here was to attack the weakest elements of the enemy forces and cause attrition on their strongest elements. Finally, Piye demonstrated the 'crusading' character of the campaign when he exhorted his men not to heed the clamour of the enemy as they deployed for battle, but to form their own battle-line in confidence; 'thou knowest that Amun is the god that has sent us'.

The use of close-order native infantry (which existed by the time of the Persian period, but may have been allowed to lapse after the New Kingdom), combined with large numbers of Greek mercenaries, would provide Saite and Persian period armies with a solid infantry element to form the centre of the battle-line. Chariotry had become heavier and no doubt cavalry had usurped all the skirmishing and scouting functions of this arm.

In his fictional 'Cyropaedia', Xenophon describes the Egyptian infantry tactics in use during the Persian period. The Egyptians form up in dense columns of 10,000 men with 100 ranks and files. They are armed with shields extending to their feet and long spears. The shields are apparently ideally suited for fighting in close formation. The troops are too densely formed to allow intricate manoeuvres, such as retraction of ranks and files from the path of charging scythed chariotry. Despite inflicting many casualties, such an attack fails to break up the formation and the chariots are overwhelmed by force of numbers. The Egyptians are described as fighting with tenacity and determination. This description would seem to be based on some degree of personal observation and it is interesting to note that Xenophon assumes that these troops would actually stand and receive a chariot attack, and that such an attack delivered by chariotry specialised for breaking up massed infantry formations like no earlier chariotry had ever been, could be successfully held. Perhaps he was trying to make the point that with such a dense infantry formation, it would not be necessary to make evasive manoeuvres, as contemporary Hoplites were doing, possibly on account of less deep columns.

THE LIBYANS AND NUBIANS

The Libyan and Nubian tribes were almost entirely infantry and generally less well-equipped than their Egyptian neighbours. Tactics were restricted to skirmishing, ambushes or attacking in massed waves of loose-formation tribesmen. Like the colonial powers of more recent times, the Egyptians relied on discipline and volume of missiles to halt their massed attacks. These attacks would be effective enough if their opponents' discipline or nerve faltered, or their shooting ability was impaired. Thus we find the Libyans on one occasion attempting a dawn attack to achieve surprise and perhaps utilise the half-light (they were coming from the west). Against the Nubians, who were also mainly bowmen, the Egyptians may have been forced to close in for hand-to-hand combat, rather than exchange missiles with more dispersed and better-concealed opponents. The most powerful Nubian peoples lived along the Nile and probably made use of large war canoes similar to predynastic Egyptian types. This would explain the concern of the Egyptians for defending the river approaches of their forts and securing their lines of communication. Perhaps the best tactics that could be employed by the Libyans and Nubians would be to retreat into the vastness of their domains and allow their enemies to succumb to the heat, thirst and distance, combined with constant harassment. At the end of the New Kingdom the Libyans began to attack Egypt in such strength that the Egyptians were unable to prevent large scale settlement. The region of Libya extended from the Mediterranean Sea as far as Nubia, and Libyan incursions took place along this entire frontier, although the main attacks were in the north. The detailed records of the Necropolis workmen at Thebes show that on occasion men were too often afraid to walk the short distance over the hills to the Valley of Kings, for fear of the Libyans. The population of Thebes shut themselves up in the walled enclosures of the great mortuary temples which lined the west bank of the Nile, to escape the marauding bands of Libyans and disaffected soldiery.

SUMERIAN TACTICS

Only the vaguest hints of Sumerian battlefield tactics are provided by contemporary textual sources, though rather more may be gleaned from artistic sources. It appears that the main battle-line of close-order infantry was preceded by skirmishers armed with bows, slings and javelins. The close-order troops relied for protection on thick felt or leather cloaks. Around 2500 B.C. a large bodyshield was introduced which seems to have been carried by a special shield-bearer, leaving both of the spearman's hands free to use his spear.

The chariots were probably originally used as a shock-force, charging down on the enemy infantry and driving them from the field. However it appears that the long two-handed spear of the infantry was adopted to keep chariots at a distance, relegating the chariotry to the pursuing of an enemy already beaten by infantry combat. It is also to be expected that the nature of the terrain in Sumer, with its many irrigation ditches and canals prevented the use of chariotry to its full potential.

Spearman seem to have formed up six-deep. The spearheads of the rear ranks protruded beyond the front rank. The 'commanders of 10' formed up on the left of each rank. The famous 'stela of the Vultures' shows a unit of 60 men drawn up in this way.

The large shield and long spear continued in use throughout the Akkadian period and into the Third Dynasty of Ur. However the large shield and chariotry were often discarded during the Akkadian empire, probably because armies were increasingly required to operate far afield in difficult terrain. The victory stela of Narim-Suen shows infantry armed with long spears, but without shields, advancing up wooded mountain slopes, supported by archers.

THE OLD BABYLONIAN AND OLD ASSYRIAN KINGDOMS 1894-1595 B.C.

Troops were divided into two categories; *sabum kibitum*, or 'heavily-armed troops' and *sabum qallatum*, or 'light troops'. The latter were able to mount ambushes while the former may have formed up in battle lines and used holding tactics.

The main body of the army advanced in a 'battle-formation', preceded by a vanguard known as a *sabum tarditum* or *sabum rasum*. One source mentions a vanguard of 1000 men preceding a main force of 3000. Another source mentions a vanguard of Hana tribesmen numbering 1500.

Light contingents could include tribal troops; a letter requesting that a *sabum qallatum* be sent out to ambush an enemy column resulted in the despatch of 600 troops consisting of 150 Hana, 50 Sutu, 100 men from the 'banks of the Euphrates' and 300 Babylonians. They were sent out in alternate groups of 150.

Shamshi-Adad and Ishme-Dagan appear to have been good tacticians. Shamshi-Adad advised his son in one letter to beware of the fallacy of a passive enemy — while he was manoeuvring against the enemy the enemy would be attempting to do the same to him. Tactics included ambushes, skirmishing with marching enemy columns, combined attacks by several allied armies from different directions, and even sending troops to hide in enemy territory in order to attack them on their return march when least expecting it.

Many of these tactical methods required good scouting and advance warning to be effective. A report survives from a frontier commander 'on the banks of the Euphrates' describing the initial response to a possible threat. Reports were received that 2000 Habiru were massing on the opposite bank of the Euphrates. Two local commanders hurried to the spot with their contingents and made a fortified position opposite the enemy, described as 'thirty fields' away. This created enough time for the rest of the area to begin mobilising. In this case the enemy did not attack.

Siege techniques were already well-developed, as was the art of fortification. Apart from the city walls that already existed, made yet more formidable by the great 'tells' or mounds on which the older cities stood, angled gateways and the glacis appear at this time. This was probably to counteract the battering ram, known at Mari as the *yashibum*,

and also referred to in Old Hittite sources where it is constructed in the 'Hurrian manner'. Cities could be further defended by cutting a bitumin-lined dyke from the nearest river. Apart from rams, methods of attack included siege towers, or *gish dimtum*, in which a ram might be mounted, and burning arrows. At Mari siege engines were constructed at that city and then transported to the scene of action. One machine was called 'wild donkey', and such engines may have resembled later Assyrian types, which were often made to look like animals.

THE MITANNIANS AND KASSITES

The tactics of the Syrians, Canaanites and Hittites, of which we know much more, were probably, like their military organisation, closely related to those of Mitanni. It seems probable that the Mitanni invented the *maryanna* system and so probably also the chariotry tactics that went with it. The elite and heavily-armed *maryanna* were the cream of the army. The infantry were intended to support them in battle. Chariotry probably formed the wings of the army, as indicated in the inscription of Lakti-Marduk. His account also shows that an attack by one of these wings at a decisive moment could win a battle, and refers to the great confusion that resulted from the combat of massed chariotry. In such circumstances, well-drilled and disciplined chariotry, with a good tactical organisation, would prevail. The account referred to above seems to indicate that the opposing centres engaged first.

This account might also suggest that the centre of the army would advance to engage the enemy centre, while the wings would attack the opposing enemy wings and attempt to sweep away their chariotry. They could then fall on the flanks of the enemy centre. The centre would probably contain most of the infantry, but small detachments of loose-formation infantry, probably armed with missile weapons, may have been used in close support of the chariotry.

The capture of the royal or army standards belonging to Mitannian and Kassite armies is recorded in Assyrian sources as if to show a measure of the victory. In the confusion of a massed chariotry battle, such standards, mounted in chariots, would provide a useful rallying-point. The standard of the king, perhaps located with the elite chariotry in the centre, would indicate to the chariotry on the wings the point to which they should turn having defeated their opponents. Similarly, such standards on the wings would show the commander the progress of his flank chariotry so that he would know from which direction support would come and warn him of the danger of envelopment should they be seen moving back. This is exactly the sort of information that the Egyptian king and his army commanders would have required in a battle such as Kadesh, (and probably did have).

THE ASSYRIANS

General

The main infantry battle-line would have cavalry and chariots on the wings for pincer movements and efforts to overwhelm and turn the enemy flank. For this the cavalry and chariots would attempt to break through the enemy line, creating a breach which the cavalry could exploit, riding behind the enemy line and attacking the rear. The infantry would then rush up behind to engage along the whole front and to maintain and widen the gap in the enemy front.

Chariotry

The large, four-horse Assyrian chariot was primarily used in a 'shock-charge' capacity. It was a development from the earlier, lighter vehicles which had to be multi-purpose reconnaissance, despatch and shock-charge vehicles. The first two roles had been increasingly taken over by the developing cavalry arm since the 10th century B.C., cavalry being both cheaper and more efficient in these roles. With these limitations upon weight removed, the chariot could become far more specialised to meet the purpose for which it was best suited, to deliver an attack by heavily-armed elite troops with speed and mobility. As cavalry began to become effective as mobile missile troops and, to a limited extent, close-combat troops, the number of the crew, the amount of protection and the size of the chariot were increased to the detriment of manoeuvrability, and limited further the terrain on which it could be used.

The chariot units would form up on the wings of the Assyrian battle-line, supported by cavalry to guard the vulnerable flanks and rear. They would then rumble toward the enemy, the shield-bearers holding their shields high over the heads of their companions to guard against enemy arrows descending at long ranges. The sight of these vehicles thundering across a plain might well have been enough to cause any untrained enemy levies to flee. Those that stood firm would have little hope, unless they had sufficient volume of missiles to break the Assyrian charge by killing the vulnerable chariot horses (often well protected enough to make this ineffective). If they failed to halt the charge, yet their nerve held until the shock, the resultant clash might ruin them as a fighting unit.

To be fully effective, however, chariots were limited to open battle on fairly flat plains or gentle slopes, as at the battles of the Ulai, Halule and during Ashurbanipal's Arab wars where the speed of the enemy camels proved insufficient to escape a combined force of Assyrian chariots and cavalry.

When campaigning in difficult terrain, such as the mountainous regions to the north and east of Assyria, the chariotry were often left behind, or only a small force of chariots was taken. Sometimes only one chariot, that of the king himself, would proceed, accompanied by guard cavalry, probably as a command vehicle. Even then, it might need to be hauled up the mountainsides with ropes.

Cavalry

Horsemen, used as scouts or messengers, had long been known in the Near East, but by the 10th century B.C. true cavalry make their appearance in several regions of the Near East, such as the Aramaean and Neo-Hittite states, Iran and possibly Egypt. The first use of cavalry in Assyria occurs during the 9th century B.C. At first cavalry operated in pairs consisting of an archer and a shield-bearer, the latter holding the reins of the other's horse and screening him with the shield while he shoots. This gives the impression of a chariot crew and horses operating as a unit while the vehicle itself has been dispensed with. By the time of Tiglath-Pileser III the cavalry still operate in pairs but control their own horses. By the 7th century B.C., however, cavalry equipped with both spear and bow, armoured, and riding armoured horses were in use, although the shield had been discarded by Assyrian cavalry during this process of development.

The cavalry team of archer and shield-bearer would have the advantage of being able to operate in terrain that would have restricted or prevented the use of chariotry and were able to carry out the function of mobile missile troops. With the introduction of armour and the cavalry spear, some degree of shock-charge ability was added, making cavalry a really viable replacement for chariotry in any but the most favourable terrain for chariotry, and against any but the most heavily-armed and densely formed enemies. Apart from the general trend in this direction in the Near East, and the possible economic advantages of developing cavalry as a replacement for chariotry, the process may also have been encouraged by contact with Urartu, Iranian peoples and the Cimmerians, some of whom may actually have been recruited into the Assyrian army, (made indistinguishable from native Assyrians by the issue of standardised equipment).

The reliefs of Sennacherib's palace give many good examples of cavalry operating in hill-country, forests and charging up hill-sides. One such charge is shown in a very advanced style of composition predating the Ulai reliefs of Ashurbanipal (and their 'Egyptian' influence). The complete scene, sub-divided by a stream and hills in the bottom register, shows an Assyrian cavalry charge against Elamite archers. Unfortunately, the original relief was lost but a drawing of it survives, showing 22 Assyrian horsemen and 43 Elamites, with some damage to the top of the slab making the scene incomplete. The Assyrians are shown unarmoured, which might be due to an economy of style on the part of the 19th century artist, Layard. Half of the Assyrians are using rather long spears overarm. The relief is perhaps read better from bottom to top (lowest registers being the 'foreground' according to ancient Near-Eastern artistic principles). An initial Assyrian uphill charge breaks through and routs the line of Elamite bowmen holding the heights. A pursuit begins down to the river-valley. The Elamites, fighting now in broken groups, are surrounded and ridden down. The initial Assyrian formation was apparently a front-line of spear-armed horsemen with a second line of horse-archers, shooting over the spearman's heads. In this way each man could give his full attention to what he was trained to do. We can see that the spearman's primary weapon was the spear and the bow was a secondary weapon, whilst the second line, 'pure' archers role was to shoot accurately in support of the front line, and perhaps even avoid becoming involved in hand-to-hand fighting.

The Ulai battle reliefs of Ashurbanipal show a combined chariot and cavalry charge upon the Elamite left flank. Unfortunately the slab dealing with the first impact of the charge is fragmentary. However, large numbers of armoured cavalry were involved. The Assyrians use the overarm thrust with the spear, using it to stab rather than impale like a lance. The spearmen are again supported by horse archers. In hill-country mixed heavy/medium infantry appear formed in two lines running in open order.

Cavalry could not be used in sieges unless some of the heavy archers shown shooting up at the battlements were dismounted horse archers. However they must have proved invaluable for quick raids, securing lines of communication and armed reconnaissance.

Infantry

The Assyrian close-order spearman is nearly always shown using a downward overarm thrust in combat, while his raised shield covers his face and body. Occasionally an underarm thrust is shown. There is little information on training methods but a strong impression is given that discipline was rigorous.

Reliefs often show a front line of spearmen with a second line of light or heavy archers. That this is not purely a battlefield arrangement is shown by the line of guards escorting Sennacherib at a stone quarry, and with Ashurbanipal on a lion-hunt. Lines of spearmen bearing shields stand at attention with archers safely behind them. The term 'lines' is used here rather than 'ranks' as it is not certain whether or not units were actually raised as mixed archers and spearmen.

It is clear from the reliefs that the infantry made up the greater part of the army and bore the brunt of the fighting. Heavy infantry units would probably be screened and supported by auxiliary archers and spearmen. Missile support for the spearmen would be provided by the archer units attached to them, possibly both on a permanent and semi-permanent basis. This arrangement would be especially useful to break the impetus of a charge, and maintain attrition on the enemy when the spearmen were unable to close in for hand-to-hand combat.

Use of combinations of infantry types was not necessarily restricted to archers and spearmen as slingers are sometimes shown directly behind archers in reliefs. They seem to be shooting at a high angle and the combination in this case may have been intended to counteract the effect of the enemy shields. Their opponents would not be able to shield themselves from low angle archery without leaving their heads and bodies exposed to a hail of heavy Assyrian slingshot.

The Assyrian use of subject and tribal levies was extensive. However, such tribal levies could often provide only light skirmishers. For this reason their use was restricted to skirmishing before the battle-lines met, at which point they would retire or plunder the dead. Other more successful uses were in holding strategic routes or river-crossings for the main army, or raids into enemy territory. Some levies would be given limited training, but their natural skills would often be useful in themselves, especially in difficult terrain. Subject troops, recruited from the armies of conquered nations, were often incorporated into the *kisir sharruti* to become professional soldiers in the Assyrian army, equipped and trained on Assyrian lines.

Siege Techniques

Assyrian strategy required that cities be reduced very quickly. If most of the campaign season was to be spent simply in besieging the first few cities which refused to submit, then campaigns would have to be given very limited objectives, thus wasting much of the effort and expense of their preparation. Ingenious siege engines and effective siege techniques were thus an essential part of the Assyrian military organisation. For the same reasons it was also their intention to reduce unnecessary casualties by protecting troops with large shields and covered rams.

Assyrian siege techniques were very methodical. The detailed reliefs of the siege of Lachish show the methods used against a major town. A timber-laced and revetted earth ramp was thrown up against the wall. Sometimes mud-brick could be used in the construction. Upon the ramp a wooden trackway was laid down, on which the siege engines would advance. Further back, armoured slingers and armoured archers, positioned behind large reed pavises, shot at the defenders on the walls. The defenders tried to stop the engines by dropping flaming torches on them but each engine had a crewman with a long-handled ladle dowsing the machine with water. They might even try to overturn the siege-tower by catching the ram in a chain, hung down from the battlements. Finally the Assyrian auxiliary infantry assaulted the wall with scaling ladders with light archers shooting in support, or poured through the breach. In the Lachish relief, the defenders had in vain heightened the wall with a framework of wood and shields in an attempt to defeat the ramp.

THE BABYLONIANS

Very little is known about the tactics employed during the Neo-Babylonian Empire, but they were probably similar to those used by the Assyrians. We know more about the period immediately preceding this due to the Assyrian records concerning the wars fought against Babylonian rebels. The Babylonians used the difficulties and natural obstacles of their countryside to good effect. Large parts of Southern Babylonia were marshland in which fugitives could hide with their retinues, emerging when Assyrian forces had gone home, or proceeding to exile in Elam. Merodach-Baladan was once hunted for five days in these marshes and there are Assyrian reliefs depicting their troops weeding out resistance in these regions by means of reed boats. Further north, the countryside was scored by numerous irrigation ditches and canals. Skilful choice of defensive positions was thus a feature of Babylonian tactics at this time. At Dur-Papsukal, the Babylonian rebel Marduk-balatsu-ikbi, supported by Elamites and Chaldeans, took up a position surrounded by an 'expanse of waters' which the Assyrians described as difficult to approach. A similar tactic was used by Merodach-Baladan at Dur-Yakin. The Babylonians cut a channel from the

Euphrates 200 cubits wide and broke down irrigation ditches in order to flood the fields with water. They then pitched their camp in the middle of this swamped area and awaited the Assyrian army. However, the Assyrians were undaunted and sent elite troops across the defences, while archers shot over the waters into the Babylonian camp.

The Babylonians may have found it difficult to muster their troops quickly, for there are two occasions when Babylonian armies turned up late for a battle, their allies having fought and won it on their own. This happened at Der, where the Elamites forced an Assyrian retreat, and when Nineveh fell to the Medes alone. If intentional, this must rank among the most astute of military tactics!

THE ELAMITES

The Elamites are usually credited in contemporary sources with possessing very large armies, probably numbering tens of thousands, most of which would be infantry archers. Such forces could be quite effective in themselves, but by the 7th century B.C. at the latest, their effectiveness had been greatly enhanced by means of large, four-horse or mule, chariots, capable of carrying up to three archers in addition to the driver. The effect of the missiles discharged by a unit of such chariotry would certainly improve their shock effect against most opposition. These vehicles dispense with the elaboration of other types of chariotry and yet would be capable of taking on such opponents on equal terms, if their increased shooting capability did not actually give them superiority. These chariots may be partly accountable for the great mobility displayed by Elamite armies. Even if these vehicles were only used to transport the numerous archers, it would be possible to out-manoeuvre an enemy army with the Elamite infantry alone. The Elamites also possessed cavalry, which would have made a good tactical combination with the chariotry, especially as such heavy, unmanoeuvrable chariots would benefit from cavalry protection of their flanks and rear.

The Elamites often fought as allies of Babylonian rebels against Assyria, and their support could usually be relied upon. If the main Elamite army itself was not present, there might be forces positioned in Babylonia under Elamite commanders (in one case, 7,500 men). The Elamites were quite prepared to meet the Assyrians in pitched set-piece battles (understandable if they had a superiority in archers, chariots and possibly cavalry), and the Babylonian chronicle tells us that this strategy often brought results. Alternatively, forces, such as light troops and cavalry, could be detached in order to hold up an enemy army, perhaps to create time for a combined Elamite and Babylonian army to assemble.

CANAAN AND SYRIA; from the Hyksos to Solomon

Canaanite tactics and strategy depended on the use of high quality chariotry to maximum effect. The primary role of the chariotry was to skirmish with the enemy and reduce him with attrition by a massive volume of missiles. The speed, manoeuvrability and heavy armour of the *maryanna* would enable them to do this without severe losses from enemy missiles. Unsupported enemy chariotry would probably be charged outright. Surprise attacks and flanking manoeuvres by massed chariotry were particularly desirable. To attack the enemy when he was stretched out in column of march or otherwise poorly deployed could be most effective. The Canaanite confederation led by the king of Kadesh clearly intended to employ such tactics against Thutmose III at Megiddo. Their forces were positioned to cover the northern and southern entry points into the Vale of Esdraelon. They could have engaged the Egyptian army as it marched into the valley by surprise attack, or impeded its progress by continuous skirmishing. If this failed there was still the walled city of Megiddo into which they could withdraw. An Egyptian army which had already suffered severely might abandon the idea of besieging them (much as Ramesses II later withdrew from Kadesh). The Canaanites had placed their camp outside the city, between their two divisions. Thutmose foiled this plan by advancing through the difficult but lightly-held pass of Aruna. He emerged opposite the Canaanite camp, completely surprising his opponent.

Despite the Egyptians' strength in infantry they appreciated the need for good chariotry in order to deal with Canaanite opponents. An infantry army would be extremely vulnerable whenever it attempted to move, even though it might prevail in a set-piece battle on a restricted battlefield. Chariotry were in fact an excellent form of defence for the Canaanite cities. They could impede the movement of invading forces, keep the initiative with the defenders as long as possible, and were able to engage the enemy far away from the city and its supporting cultivation, keeping supply lines open. Enemies who could counter the chariotry with their own, would simply find themselves fighting on the same terms with chariot specialists.

In the early stages of the Hebrew settlement of Canaan, the Hebrews were virtually restricted to the highlands because of the Canaanite strength in chariotry. The Hebrews were successful when they could lure their opponents into operating in terrain unsuitable for chariotry. This ploy was used by Barak against Sisera. If a victory was achieved,

the houghing of captured chariot horses, rather than abandoning them if they could not be carried off, might render an opponents' military power weaker for years to come. Unlike armies based on masses of infantry, each chariot represented a complex and expensive unit. Losses could not be readily replaced.

With the expansion of the Hebrew kingdom into an empire, embracing lowland plains and with long caravan routes and frontiers to police, it was necessary for Solomon (960-930 B.C.) to develop his own chariotry. They were placed in strategic positions and the logistics of their maintenance were carefully planned. In doing this he was following Canaanite military tradition.

The Canaanites, in placing their emphasis on chariotry, were opting for defence in depth with mobile forces. It is an ideal option for areas with a comparatively low population but considerable wealth. Other methods of defence would require placing troops on the frontiers (for which there might be insufficient men) or defending the cities at their walls (thereby surrendering their means of support to the enemy). The Canaanites allowed themselves to be besieged only as a last resort.

The Hebrew Order of March

The Book of Numbers contains details of the arrangement of the Hebrew camp and order of march during the exodus from Egypt. It provides an example of how a large group of nomads or dispossessed people such as the Sea-Peoples, would move as an entire nation, prepared to fight at any time. Each tribe was allocated a particular fixed area of the camp and position in the line of march. Each man was to pitch his tent near the standard of his tribe or clan. The shrine (The Ark of the Covenant, in the case of the Hebrews, but other peoples would have had their tribal gods which they carried with them), was positioned in the centre of the camp and the middle of the line of march. The tribal host was alerted to danger by trumpet signals, for which two silver trumpets were used. One blast with both trumpets gathered all the tribal commanders to the leader to receive instructions. A special signal, called the 'Alarm', signalled the advance of one wing of the host when sounded once. Sounded twice, it signalled the other wing to advance. The wings acknowledged the signal with answering blasts. There was probably a system whereby the line of march turned itself into a battle formation facing the direction of the threat, with the non-combatants falling back to the rear or being protected in the centre of a defensive formation.

The tribes of Judah, Issachar and Zebulun were positioned on the east side of the camp and were to form the 1st division in the column of march. Reuben, Simeon and Gad were located on the south side of the camp and were to form the 2nd division. They were followed by the Ark accompanied by the Levites from the centre of the camp. The west side was occupied by Ephraim, Manasseh and Benjamin who formed the 3rd division and the north side was occupied by Dan, Asher and Naphtali forming the hindmost division. This arrangement was adopted during the exodus from Egypt and may be similar to contemporary Egyptian military practice, for example; the organisation into four bodies.

HITTITE TACTICS

General

Whatever the area of operation, great emphasis was placed on surprise attacks, rapid movement and forced marches. The Hittites generally show an ability to use initiative and imagination. Surprise could be accomplished by marching at night, feigned retreats and use of scouts to mislead the enemy. Hittite scouting seems to have been good (their plans often relied on knowing the exact whereabouts of the enemy before they suspected the presence of the Hittite army). When an advantage had been gained there was an inclination to press it as far as possible. This attitude applied to grand strategy as well as battles and is demonstrated by the sack of Babylon and the seizure of Egyptian territory following the successful defence of Kadesh and withdrawal of the Egyptians.

In Syria

In this area Hittite allies were states whose contingents included large numbers of high-quality chariotry. The tactics employed were based on the offensive use of chariotry, with infantry in a supporting role. Battle plans were similar to those of the Canaanites and Syrians. The army would be deployed for a set-piece battle in a strategically important plain into which the enemy must advance. A massed chariotry onslaught would be despatched against the enemy before they could properly deploy their forces. Another option would be to sweep away any opposing chariotry, (Hittite chariotry were designed for close-combat) and use their own chariotry's mobility to surround the enemy army on the battlefield. Close-formation spearmen remained in reserve in large bodies. Against enemies

who were also strong in chariotry they could be used to resist chariot attacks and act as a second line or rallying point for their own chariotry. Against opponents with good infantry they could be used where chariot attacks would not be decisive.

In Anatolia

In Anatolia there were more occasions when chariotry could not be used effectively, such as in highland regions against the Kaska. Infantry would be employed offensively with chariotry held in reserve.

In his campaigns in Anatolia, Mursilis II (1346-1320 B.C.) used a 'flying column', perhaps consisting of light infantry which were sent out ahead of his marching columns to clear the way of enemy ambushes. This force was also used to screen the rear of the army and operate on the flanks.

Chariotry

There appears to have been some variation in chariot design and chariot tactics within the Hittite Empire, reflecting the different regions from which contingents were drawn. The Hittites and, at least, their allies from Arzawa, Masa and Pitassa, used three-man chariots. This may have developed from allowing a runner to ride in the chariot to increase mobility and eventually became standard tactics. Many Hittite chariots were more robust in design than Syrian and Egyptian types; with eight-spoked wheels and the axle placed further forward (better suited to carry the extra weight), suggesting that chariot design altered to accommodate this development. Some chariot crews included an archer and others comprised only two crewmen. These were probably allies from Syria.

Against enemy chariotry, the Hittite chariotry would charge into close combat. The Hittites would attempt to get close to their opponents to discharge their spears or thrust with them. Against lighter chariotry, the heavier spears and more numerous crew would tell. A third crewman meant that a vehicle could afford to lose a man without becoming ineffective. A chariot charge into loosely-formed or poor-quality infantry might also be successful. The greater number of crew would give a greater density of attack and allow some troops to fight on foot without greatly reducing the effectiveness of the chariot. The extra mounted fighter could fulfil many of the functions for which runners would be required, with the additional advantage of being certain to keep up with the chariot.

THE NEO-HITTITES AND ARAMAEANS

The Neo-Hittite, Aramaean states of Syria, and the kingdoms of Israel and Judah used similar tactics, as their armies were of similar organisation and composition. Chariotry were still the most important part of the army, many states supplementing these with good cavalry. Cavalry may have been developed from chariotry by mounting chariot personnel on spare horses instead of increasing the size of the crew, or perhaps mounting troops who would previously have been chariot runners. The process seems to have followed a pattern similar to that in Assyria, freeing the chariotry from many roles requiring speed and mobility (skirmishing, reconnaissance, courier duties for example) and allowing greater specialisation in shock tactics. Such shock tactics would be rendered all the more effective if the chariotry were closely supported by cavalry to protect their flanks and rear. Various formations and manoeuvres involving the use of lines of cavalry following behind or screening the front of chariots would become possible. Assyrian records mention the capture of 'royal cities' which were apparently centres for supply and garrisons. These would have been necessary for the maintenance of a chariot force, as they were in the Israelite organisation of Solomon and Ahab.

Infantry consisted of spearmen, of which some were elite troops, archers, slingers and javelin armed men, most of which were probably light, loose-formation troops of Aramaean type.

Several states would sometimes combine in a coalition in order to have sufficient military strength to resist opponents such as Assyria. The most notable example of this being at Karkar in 853 B.C. These contingents were probably subordinate to an acknowledged overall commander, such as Hadadezer. When Israel and Judah combined in a campaign against Damascus, Jehoshaphat placed himself under the command of his ally, Ahab; 'my horses (are) as thy horses'.

Occasionally, in the wars between these states, sieges took place. Zakir of Hamath records that Hazael of Damascus besieged his city with a 'wall' and a 'moat'. Usually rulers preferred to meet their opponents on ground of their own choosing, often near to a royal city into which they could retire if defeated. These cities were difficult to take, having large reserves of supplies and deep wells sunk within their walls. They might even be able to hold out for several years. Damascus, Jerusalem and Samaria all defied the Assyrians for long periods. If a siege could be withstood

for long enough the besieging forces would be required to abandon the siege as the campaign season ended or because they were needed elsewhere. These considerations no doubt encouraged the Assyrians to develop a large standing army and highly developed siege techniques.

THE MINOANS AND MYCENAEANS

Chariot Warfare

Although the Aegean states could not muster as many chariots as could their Near-Eastern neighbours it is likely that chariotry were formed and fought in organised units in Near-Eastern fashion. Much has been made of the so-called 'Homeric Warrior' who fought as an individual and used his chariot as battlefield transport. These tactics may well apply to a later period but do not seem to comply with the high level of organisation portrayed in the Linear B tablets. There are also references to other methods of chariot warfare in the Iliad which tend to be overlooked. It is only to be expected that a work concerned with the exploits of heroes should emphasise their individual combat. This does not mean that such combat was typical, nor would it be completely incompatible with massed chariot tactics.

Even in the Near East where massed chariotry tactics were the rule, literature can still emphasise individual circumstances. The Egyptian epic poem on the battle of Kadesh describes Ramesses as if he was fighting off the Hittites single-handed. The annals of Amunhotep II mention his personal capture of a *maryannu* in a skirmish. The tomb biography of Ahmose, son of Ebana, emphasises his personal captures in the midst of battle and the Biblical account of the battle of Ramoth-Gilead centres around the Syrian attempts to single out the Israelite king in the confusion of battle. Chariot combat was by the very nature of the vehicle, fought in a dispersed and confused fashion.

Part of the Iliad which mentions massed chariot tactics is the description of how Nestor drew up his forces for battle. Nestor is said to be old and experienced. He had experience, acquired in battles in his youth, of tactics that were later falling out of use. This sounds rather like a device to introduce into the work a memory of authentic Mycenaean practice on the part of a later poet. Nestor placed chariotry at the front and a mass of infantry behind them. The chariotry were instructed to keep control of their horses and not to become entangled in the melee ('keep in line'). Bravery and skill did not entitle any man to break ranks and fight the enemy alone, in Nestor's doctrine. No one was to drop back and so weaken the force. When a chariot came within reach of an enemy vehicle, a spear thrust should be attempted. This material could have been deliberately worked into the Iliad from a Mycenaean source in order to contrast with the methods of the other heroes. An image on a Mycenaean carved gemstone from Vapheio shows a chariot fighter using a long spear exactly as Nestor advises.

Other comments in the Iliad hint at the existence of sophisticated chariot tactics. Chariots appear to operate in the space between the lines of opposing infantry and withdraw rapidly as the infantry clash. If this implies skirmishing, then it refers to a time when the javelin had superseded the chariot lance. It could also indicate screening of the advancing infantry (moving chariotry would raise a lot of noise and dust), or attempts to break up the enemy battle line to create advantage for their own infantry. The rampart built to protect the Achaean ships from Trojan attack incorporated a ditch and stakes to obstruct chariotry, so perhaps substantial chariotry attacks were expected.

A detailed reconstruction of a chariot melee serves to demonstrate that a degree of individual combat cannot be ruled out. In the opening phases of a battle, or on the flanks of the main action, enemy chariotry might attempt to impede deployment or attempt to break up the battle line by threatening the flanks of the infantry bodies.

They would need to be countered, engaged and driven off by friendly chariotry. Clearing away enemy chariotry would gain respite, while destroying them would gain the initiative. As a troop of chariotry advanced into combat with an enemy body, they would initially keep in formation, (probably line abreast). The gaps between vehicles would be wide enough for each to 'about turn'. A second rank would serve no useful purpose, whereas a second troop of chariotry or a body of infantry following some distance behind, would render invaluable support.

As the clash approached, each charioteer would concentrate on steering his car towards the enemy vehicle opposite him. The chariot lancer would brace himself, perhaps trusting in plate armour to deflect the thrust of his opponent, against whom his own spear would be levelled. He might launch a javelin towards the opposing line before adopting this position. As the lines interpenetrated, the cars would veer past each other and either chariot fighter could be knocked from his vehicle by a well-aimed thrust. This action would be repeated all along the line. After the formations had passed through each other, many crewmen on both sides would have been killed or dismounted. The chariots would then attempt to turn about and engage in further combat. Drivers might try to rescue their fallen

crewmembers. Some crewmembers might dismount to despatch fallen opponents, or engage them on foot. The melee would become confused and there would be chances for a warrior to win renown by seeking out and slaying a notable enemy. The undisciplined might waste time dismounting to loot or take captives. If either formation was backed up by a second wave of chariotry or infantry, their arrival at this time could be decisive. Finally the remnants of the worsted formation would retire pursued by those who have not stopped to loot or rescue friends. If they should reach the protection of their own infantry the pursuers could be repulsed by volleys of missiles or deterred by a mass of spears.

A change in chariot tactics probably took place towards the end of the 13th century B.C. when chariot design altered and a less robust vehicle called the 'rail-chariot' appeared. This is probably a better candidate for 'battlefield-transport' than the earlier types and its introduction may be associated with the change in infantry equipment (and presumably also tactics) taking place at this time.

Infantry Tactics

The Minoans developed drilled close-order formations equipped with very long spears and large body-shields. The shields were initially rectangular, allowing them to meet edge-to-edge to form a continuous wall. This would not only render the front ranks almost invulnerable to missiles, but prevent many missiles from passing into the rear ranks, which smaller shields could not do so effectively. These are certainly the shields of close order troops. Archers operated from within the spear-formation, no doubt deriving some protection from the shields. The size of the shields suggests a considerable missile exchange before contact. The rectangular shield was later accompanied and possibly superseded by the 'figure-of-eight' type. This had certain advantages in that it was deeper, increasing its deflective quality and the 'waist' provided a gap allowing spears to protrude at a lower level from the shield-wall and greater opportunity to use the thrusting sword in the cramped circumstances of a closely packed body. This shield also had a long central rib or 'boss' allowing it to be used offensively to press apart the shields of the opposition and break into their shield-wall. Sources show 'eight-shields' and the rectangular 'tower-shields' in use within the same formation. It seems a reasonable tactical arrangement to equip a proportion of each body with each type. Alternatively, the variation may be due to personal preference.

With the rise of Mycenaean power, this type of infantry gave way to troops equipped with short spears or javelins using smaller, round shields. Formations may have become less rigid and styles of fighting more individual. This required use of body armour such as greaves and cuirass. There was thus a move towards the 'Sea-Peoples' type of warrior, which was almost complete by the time of the famous 'Warrior-vase' from Mycenae. Possible reasons for this change might be an inability to train and organise long-spear formations or that they were rendered obsolete by the needs of the time (such as possible increase in seaborne raiding, or the evolution of faster moving and less formal battles under the influence of chariotry).

The Iliad describes combat by both types of spearmen, those with man-covering shields slung on shoulder straps and those with round shields combined with cuirass. No doubt a variety of sources were drawn upon by later poets, but there would also have been transitional phases in the development of tactics.

Missile Troops

The Iliad makes several references to archery, and there were contingents on both sides at Troy which are said to be archer specialists. There is also good material and pictorial evidence for archery. Some archers formed up with the long-spear formations. They probably shot from between the ranks and files of the spearmen in order to benefit from the shields rather than representing an integral part of the unit organisation.

Armies might bring with them various poorly-equipped and untrained levies. These provided skirmishing slingers, archers and stone-throwers on the battlefield. They were held in low esteem by their social and military superiors. Nestor placed his inferior troops between the chariotry and a rearguard of good infantry to discourage them from shunning the fight. If a settlement was attacked by surprise, such as might happen in a seaborne raid, the majority of the defenders would be such troops, supporting any more substantial forces that might be stationed there. This may be the case in the scene on the so-called 'siege-rhyton' from Mycenae. Here a small group of large shield-bearers make a rather forlorn stand assisted by hordes of naked archers, slingers and stone-throwers.

THE MOUNTAIN KINGDOMS

These include Urartu, Mannai, Madai (Media) and states of lesser importance such as Namri, Zikirtu, Na'iri. It was difficult for the Assyrians to conduct campaigns into these regions. Chariotry were often made ineffective by

the nature of the terrain, requiring them to be left behind, dragged up mountainsides by ropes or even forcing the Assyrians to cut roads for them with the chisel. Further problems were caused by the weather conditions, raging mountain torrents which defied even the Assyrian's river-crossing abilities, and guerilla warfare on the part of the inhabitants. In some of these regions there was no real unity, simply large numbers of settlements and citadels in inaccessible places.

Urtu, Mannai and the Medes appear to have been the better-organised states. Urtu rose to prominence as a great power and rival to Assyria, but little is known of Urtian tactics. It would appear that chariotry were of lesser importance as the mobile arm of the army than the cavalry which were highly developed. However, at the battle of Mount Simirra, Sargon II encountered the Urtians and their allies from Zikirtu deployed in a mountain pass with their infantry to the fore and their cavalry behind them, somewhat restricted by the position. This would appear to be odd tactics to choose considering the respect with which the Assyrians viewed Urtian cavalry, and the Urtians were on this occasion, defeated. The contingent from Zikirtu may have remained separate from their allies, allowing the Assyrians to break through what would otherwise have been a strong position. When defeated or forced to retreat from their stronghold, the forces of these mountain kingdoms frequently chose to hold on the slopes of some high peak, forcing the enemy to fight them in terrain to which their troops were naturally accustomed. Mannai possessed chariots, cavalry and infantry, but like Urtu, the chariotry remained the two-horse, light type and probably played a less important part than the other two arms. Some of the plaques from Hasanlu show cavalry and infantry archers operating together with chariotry. One plaque shows two lines or ranks of three Mannaean cavalry. Infantry consisted of archers and spearmen. Archers are sometimes shown shooting in a kneeling position. As to the Medes, we know very little of their tactics, although their success against Assyria would suggest that they were quite well-developed. Herodotus states that they were the first to separate the various military arms such as archers, spearmen and cavalry, whereas previously these had fought mixed together. He may have heard garbled accounts of Assyrian and Babylonian mixed units, but it does indicate that the Medes were more than a mere horde. Both the Mannai and Medes employed Scythian allies or mercenaries, perhaps a force which had moved on from Urtu, led by a certain Samdaksharru.

THE NOMADS

The nomadic peoples of the Near East, of which there were very many, may be divided up according to their principal beast of burden. This would, to a large extent influence their methods of warfare.

The term 'donkey-nomads' may be applied to tribes wandering on the fringes of Mesopotamia and Syria during the 3rd and 2nd Millennia B.C. These include the Amorites, Sutu, Hana, Banu-Yamin, Shaasu, and 'Apiru. Most of these were probably branches of the same great movement of peoples. The Amorites and their sub-tribes were known by various names such as Martu, Tidnum and Aamu. The 'Apiru are perhaps not strictly nomads, but included various settled peoples, dispossessed elements and bandits. The terms Habbatu, S. A. GAZ and Hapiru are all associated with this group. These peoples moved on foot or donkey, and were feared and despised by more civilised peoples. Their tactics consisted of massing for large-scale raids which disrupted agriculture and trade. Uncontrolled settlement could completely break up the political organisation of more civilised states which were already in decline. As many of these tribes assimilated the cultures into which they had infiltrated, they began to provide new ruling dynasties. Their tribal organisation, skirmishing weaponry and raiding tactics made them less of a threat against those states which maintained their vigilance and kept up military pressure upon them.

The camel was domesticated around the end of the 2nd Millennium B.C., and was brought into the old civilisation of the Near East by such 'camel-nomads' as the Midianites, Amalekites, Ahlamu and Aribi. This added mobility added increased range and surprise to their attacks. The Assyrians seem to have found the answer to these nomads, for in his Arabian campaign Ashurbanipal stationed troops at their wells and attacked with mobile forces of combined chariotry and cavalry. Denied access to their normal watering places and pushed into the desert, their movements were curtailed and their numbers began to dwindle.

The last group to make their appearance were the 'horse-nomads', namely the Gimerraya, or Cimmerians and the Scythians, known in Assyria as the Ishkuzaya. They were, perhaps, really western and eastern branches of the same people. They appeared in the 8th century B.C., the Cimmerians passing through Urtu into Anatolia, leaving severe destruction in their wake. They were followed by the Scyths around the end of the 7th century who fought with the Medes and Babylonians as mercenaries and assisted in the destruction of Assyria. Their arrowheads turn up in all the main regions of conflict at this time. As most Near-Eastern nations had been in the process of replacing chariotry with effective cavalry for the last few centuries, the sudden arrival of such cavalry specialists must have made a great military impact, hastening the end of the 'chariot age' in the Near East.

MAJOR BATTLES OF THE PERIOD

ELAM c. 2630 B.C.

Mebaragesi, the King of Kish and overlord of Sumer, defeated an Elamite raid and pillaged Elam.

URUK c. 2600 B.C.

Gilgamesh, the King of Uruk, had rebelled against Kish in the reign of Mebaragesi and gained Uruk's independence, Gilgamesh having himself captured seven 'heroes' of Kish in battle.

After the death of Mebaragesi his son, Agga, sent envoys to Uruk to demand the city's submission. Gilgamesh refused to submit to Kish, though the older men of Uruk's assembly were willing to do so, and mustered the young men for the militia.

However, within five days Agga and his army arrived before Uruk having travelled the one hundred and sixty kilometres (100 miles) from Kish by boat down the Euphrates. Taken by surprise and unable to break the siege Gilgamesh sought terms and acknowledged Agga's overlordship.

Both Kish and Uruk were overthrown by Mesanepadda of Ur around 2500 B.C.

THE BATTLE OF THE GU-EDINA c. 2450 B.C.

The city-states of Umma and Lagash had long disputed the ownership of the *GU.EDINA* ('edge of the desert') an area of valuable irrigated land on their common border. The arbitration of Mesalim, the King of Kish, had resulted in Lagash gaining the land some one hundred years before.

Umma however resented this settlement in Lagash's favour and during the reign of Eannatum of Lagash the soldiers of Umma invaded the *GU.EDINA* and threw down the boundary stelae. Eannatum raised his army and advanced to meet the Ummaites on the disputed land.

In the battle that followed Eannatum was victorious, and Ush, the ruler of Umma, and many of his soldiers were slain. During the battle Eannatum fought on foot in the front rank of his spearmen until he was wounded by an arrow shot by an Ummaite skirmisher.

The Lagashites raised twenty burial-mounds over the enemy dead, re-dug the *GU.EDINA*'s boundary ditch and replaced the stelae that marked it. Eannatum dedicated several shrines for the victory and allowed the Ummaites barley from the *GU.EDINA* in return for a heavy tax.

THE FIELDS OF NINGIRSU c. 2425 B.C.

Following Eannatum's death Umma continued to harass Lagash over the ownership of the *GU.EDINA* by diverting the water supply of the fields and leaving unpaid the tax imposed by Eannatum.

Eventually, Ur-lumma, the *ENSI* of Umma, led a combined army of Ummaites and allies (possibly from Mari) into the disputed territory, destroying the shrines and stelae erected by Eannatum. The army of Lagash was led by Entemena, and it fought with the Ummaites on the lands farmed by the Temple of Ningirsu.

Umma was again defeated, and the fleeing Ummaites were pursued into the city of Umma itself. Ur-lumma's elite chariot squadron of sixty teams was trapped on the bank of the *LUMMAGIRNUNTA* canal and was wiped out. Five burial mounds were raised over the dead Ummaites.

However, disputes continued over the Umma-Lagash frontier, especially after the weakened Umma fell under the control of Zabalam. This situation was remedied to some extent through Lagash entering into a treaty of friendship with Lugal-kinishe-dudu, the King of Uruk and Ur.

THE UNIFICATION OF SUMER c. 2316 B.C.

Lugal-zaggesi the King of Uruk and overlord of Sumer would seem to have gained control over Mari and possibly achieved enough influence in Syria for him to proclaim their vassalage.

In the twenty-fourth year of his reign, however, Sargon (*Sharru-kin*, 'Legitimate King') the King of Kish, moved against Uruk and destroyed it. Lugal-zaggesi mustered a mighty army containing the forces of fifty *ENSI*s in order to crush Sargon's revolt but was himself defeated, taken prisoner and exhibited in a neck-stock at the Enlil gate in Kish.

Sargon fought and won thirty-four battles to subdue Sumer, sacking Ur, Lagash and Umma, and washed his weapons in the waters of the Arab Gulf to signal his triumph.

'ANTELOPE'S NOSE' Reign of Pepi I 2289-2255 B.C.

Weni, commanding an Egyptian army of 'many tens of thousands', intended to engage an army of Nomadic tribesmen in Southern Canaan. Weni divided his forces and despatched part of the army northwards by land while the remainder made a seaborne landing at a point on the Canaanite coast called the 'Antelope's Nose' (probably near Mount Carmel). These troops landed behind the enemy, who were caught between two Egyptian armies and defeated.

THE REVOLT OF BARHASHE, ZAKHARA AND ELAM c. 2272 B.C.

The short reign of Sargon's son and successor, Rimush, was almost entirely spent in suppressing the widespread revolts which broke out throughout the Empire on Sargon's death. In his inscriptions Rimush describes the defeat and sacking of several major cities in Sumer and Akkad, including Ur, Adab, Umma and Der.

The reconquest of Der once more gave the Akkadians control of the main route to Elam, which was in coalition with the smaller states of Barhashe and Zakhara, (in south-west Iran).

Advancing from Der, Rimush and the Akkadian army met the combined forces of Zakhara and Elam on the Kerkha river between Awan and Susa and heavily defeated them, killing 16,212 (variant: 17,271) and taking 4,216 prisoners. The pursuit continued all the way to Susa, which was captured and its walls again demolished. Two burial mounds were heaped up over the rebel dead, one at the site of the battle and the other near Susa where most of the fleeing Elamites were cut down.

The revolt continued until the following year when a second Akkadian victory finally crushed the rebels, resulting in 9,624 Elamites killed and captured.

Rimush was killed in a palace conspiracy in 2270 B.C. when his servants 'killed him with their tablets'! Whether this refers to a written character assassination or to his actually having been beaten to death with large, clay tablets is uncertain. What is certain is that the unfortunate Rimush was succeeded by his brother, Manishtushu.

CONQUEST OF OMAN c. 2260 B.C.

After campaigning in south-west Iran to subdue the states of Anshan and Shirikum, Manishtushu 'crossed the Lower Sea in ships' to secure the vital trade route that passed through Dilmun (modern Bahrain) and Magan (Oman?).

Manishtushu fought and defeated a coalition army of 32 kings drawn up for battle, seizing the rich silver mines and transporting quantities of stone back to Sumer and Akkad.

THE THEBAN REVOLT c. 2133 B.C.

The end of the Old Kingdom in Egypt was brought about by an increase in the power and independence of the Nomarchs and a decline in the authority of the Pharaoh. In 2133 B.C. the Theban Nomarch, Mentuhotep I, ceased to acknowledge the king of the Tenth Dynasty, residing at Herakleopolis in Northern Egypt, as his overlord. In response, Tefibi, Nomarch of Asyut, attacked the Thebans on behalf of the king, Wahkare.

Tefibi defeated the Thebans in a river battle and captured the Nome of 'Abydos'. However his troops were allowed to ravage the ancient cemetery of Abydos, sacred through the supposed burial there of Osiris. Wahkare deeply regretted this action and was convinced it would bring retribution.

The new Theban Nomarch, Inyotef II, counter-attacked with all the more determination because of this outrage, driving the enemy out of the Nome of Abydos and pushing north to the Nome of Aphroditopolis.

Soon after, a new king, Merykare, ascended the throne and Akhtoy II became Nomarch of Asyut. Both made peace with the Thebans.

THE LIBERATION OF SUMER c. 2120 B.C.

Following the death of the deified Naram-Suen and his successor, Shar-kali-sharri ('King of all Kings'), the Akkadian Empire rapidly collapsed into anarchy, due to successful revolts in Elam and Sumer and because of damaging raids by the Gutti and Lullubi tribesmen in the east, the Hurrians in the north, and by the Amorites in the west. For this period the Sumerian King List states: 'Who was king? Who was not king?'

For a period of about a hundred years Sumer was dominated by the Gutians who took advantage of the turmoil in the country to sack Agade and establish a loose overlordship. In general, Sumer's cities were left to themselves (Gudea, the *ENSI* of Lagash, fought a campaign in Anshan during this period) though the country was poor, with little foreign trade and an insecure countryside.

Utuhegal, the king of Uruk, invoked the help of the gods and the semi-divine Gilgamesh to inspire the citizens of Uruk to fight the Gutians. Having picked his soldiers from the men of Uruk, Utuhegal marched to the major shrines of Sumer in turn to rally support, which he apparently received since Tirigan, the King of Gutium and overlord of Sumer, sent two ambassadors to seek terms. Utuhegal would not listen and imprisoned Tirigan's envoys. The king of Gutium had by then mustered his forces and advanced to meet Utuhegal who defeated him and captured his officers and chiefs. Tirigan fled to Dubrum, but he and his family were surrendered to the victorious King of Uruk who set his foot upon Tirigan's neck.

THE REBELLION OF THEBES c. 2046 B.C.

On behalf of his overlord in Herakleopolis, the Nomarch, Ankhtify, led the Nomes of Hierakonpolis and Edfu against Thebes, which was allied with Koptos. Ankhtify rescued the town of Hermonthis which was under threat from the Thebans and invaded the Theban Nome on both banks of the Nile. Ankhtify destroyed the town of Yushenshen, a few miles north of Thebes.

The Thebans, under Menthuhotep II, fought back and conquered the Nome of Asyut. They advanced north, through the Hare Nome where there was much fighting, and the Oryx Nome where there was little resistance, to reach Herakleopolis which fell in 2040 B.C.

The last outposts of resistance were suppressed in the Delta and the Oases, while the frontiers were secured (the South as far as Nubia was already part of the Theban coalition during the war against Herakleopolis). Menthuhotep II took the title 'Smatawy', meaning 'Uniter of the Two Lands', and became Pharaoh of all Egypt and founder of the Middle Kingdom.

The southern Nomarchs were abolished. The Nomarchs of middle Egypt were left alone for the time being, to be suppressed by later kings.

'DAY OF SHEDYETSHA' c. 2046 B.C.

During the civil wars between Thebes and Herakleopolis there was great distress in Egypt due to famine and the ravages of the opposing armies. When Menthuhotep II marched into the Hare Nome (*Khmun*), the royal forces marched in to oppose him. The local Nomarch was Neheri, who was chief-of-staff to Herakleopolis and commander of one of the two divisions of her army. He resolved to save his Nome from the depredations of both sides.

Neheri's son, Kay, mobilised the young men to fight in companies and formed a 'rearguard' in Shedyetsha consisting only of his followers. Here they fought successfully against the forces of Upper and Lower Egypt, which included Medjay Nubians and Asiatic auxiliaries. Kay's young troops protected the people of the Nome who had fled into the swamps, while the older men would not take the field against the royal forces. Kay opened his own house to refugees from the fighting.

Meanwhile, Neheri's other son, Thutnakhte, held steady in a fierce battle with the king's troops. These actions were remembered in the Nome as the 'Day of Shedyetsha'.

Shortly afterwards Neheri decided to join the Theban side.

THE FALL OF UR c. 2004 B.C.

The exertions of Shu-Suen ensured that the Sumerian empire of the Third Dynasty of Ur remained more or less intact. Ebla, Mari, Tuttul and Abarnum in the north-west, and Shubur 'on the shores of the Upper Lakes', together with Magan, seem to have remained loyal, these areas being the extreme limits of the Empire at the best of times. However, shortly after the accession of Shu-Suen's son, Ibbi-Sin, large areas of the empire began to break away, Eshnunna in his second year, Susa in his third, Umma in year five.

Also, in year five, the Amorites, or *MAR.TU*, broke through the 'Rampart of the West' and its fortresses, penetrating to the heart of the Empire (as the defection of Umma at this time shows). The Amorite incursions cut the roads and broke down the vital chain of communication in the Empire, removing the supervision of the king from his *ENSIs*. As Ibbi-Sin proved unable to help the *ENSIs* were thrown on their own resources and, one by one, declared their independence.

From his sixth to his eighth years, Ibbi-Sin built 'great walls' about Nippur and Ur, the two most prestigious cities of his collapsing empire, whilst Lagash and even the administrative centre of Puzrish-Dagan broke away.

Elamite raiders contributed to the confusion in the country which resulted in a severe famine. In order to secure ample supplies of grain for Ur, Ibbi-Sin sent an expedition under one of his generals, Ishbi-Erra, to Isin. Ishbi-Erra was successful in buying enough grain to feed the population of Ur for fifteen years (though at a price some sixty times that of normal) however he then wrote to Ibbi-Sin to say that the Amorites controlled the roads to Ur and prevented his return, unless it were by boat along the canals. To ensure the safe return of the grain Ishbi-Erra asked for 600 large boats and the governorship of Isin and Nippur. Ibbi-Sin was not in a position to refuse, though by the eleventh year of his reign the wily Ishbi-Erra had proclaimed himself king of Isin and controlled much of the north of the country.

Ibbi-Sin stubbornly resisted the growing pressure from Isin and Elam and achieved some successes against the Amorites; and, through then enlisting their support, launched counter-attacks on Elam and Anshan in years eleven and twelve. In fact Ur, the capital and finally the only city of Ibbi-Sin's empire, continued the struggle for another twelve years before eventually being captured and sacked by an Elamite army, with Ibbi-Sin himself led captive to Elam.

Within a few years Ishbi-Erra managed to recapture Ur and was therefore able to assume the prestigious title: 'King of Ur, King of Sumer and Akkad'.

SEKMEM Reign of Senusret III

This battle was fought during a campaign of Senusret III (1878-1841 B.C.) in Retjennu. The enemy were engaged at Sekmem. The Egyptian deployment included a vanguard led by the king and a rearguard under Sebek-khu, a commander of the royal retainers. The course of the battle is not recorded exactly but the rearguard was eventually brought into action.

ASHUR c. 1808 B.C.

The city of Ashur was ruled by a native dynasty following the fall of the Third Dynasty of Ur until the throne was seized by Ilukabkabu, the sheikh of an Amorite tribe that had settled in the Jazirah. On his death the throne passed to his elder son, Aminu, while Shamshi-Adad, his other son, fled to Babylon, gathered a following of mercenaries, and captured Ekallati, a town on the Tigris north of Ashur that was part of the kingdom of Eshnunna.

Shamshi-Adad reigned there for three years before he succeeded in capturing Ashur.

ARRAPHA, QABRA AND ARBELA

Moving against the small kingdoms to the north-east and east of Ashur, Shamshi-Adad I (1813-1781 B.C.) attacked and reduced the fortresses of Arrapha in spring. After celebrating the 'Festival of Heat' in Arrapha itself the Assyrian army moved north, crossing the river Zab, and ravaged the harvest of the land of Qabra before attacking the land of Arbela in late summer.

Shamshi-Adad I reorganised Arrapha and Arbela as Assyrian provinces and established his own governors.

THE SEALAND c. 1739 B.C.

Hammurapi's son and successor, Samsu-iluna (1749-1712 B.C.), faced a major revolt in Sumer in c. 1740 B.C. instigated by Iluma-ilu who claimed descent from the last king of Isin. This 'Dynasty of the Sealand' probably ruled from Uruk, near Lagash, and controlled the trade routes from Babylon to the Arab Gulf.

A Kassite invasion prevented Samsu-iluna from reacting to this threat from the south until c. 1739 when he sacked Ur, Uruk and Kish.

The Sealand Dynasty survived safe in the swamps of southern Sumer where the kings of Babylon were unable to reach them. In a vain effort to trap Iluma-ilu, Abi-eshuh (1711-1684 B.C.) dammed the Tigris to dry out the swamps! The Sealand maintained itself as a threat to Babylon, with varying degrees of success, and was only finally conquered by the Kassite king Ulamburiash c. 1460 B.C.

THE SIEGE OF URSHU c. 1623 B.C.

The Hittite king, Hattusilis I (c. 1650-1621 B.C.), was campaigning in Northern Syria attempting to defeat the Amorite state of Yamkhad (centered on Aleppo). During these operations he was forced to conduct a long and bitter siege of the city of Urshu on the Euphrates. The forces of Carchemish (possibly allies of Urshu) were occupying high land nearby.

The siege operations were conducted by a general, Santas, and supervised by the king. These were already going badly when the battering ram broke, whereupon Hattusilis ordered a new battering ram, 'in the Hurrian fashion', to be made from timber in the mountains of Hassu, and a siege ramp to be constructed. However, the battering ram, and also a siege tower, were unfortunately delivered to the wrong place!

Eight attacks were mounted against the city without success, the delays involved resulting in unnecessary loss of life. It was found that the city was able to maintain contact with allies outside so the king ordered it to be more closely invested. In order to do this eight separate forces and eighty chariots were positioned around the city. However, a fugitive from Urshu revealed that this was still not isolating the city.

The final outcome of the siege is not clear, but the conquest of Yamkhad and Carchemish was finally achieved by Hattusilis's adopted son, Mursilis I, following Hattusilis's death in battle against Yamkhad.

BABYLON c. 1595 B.C.

After the capture of Carchemish, Mursilis I led a Hittite army south-east, following the course of the Euphrates, on a raid deep into foreign territory. The small kingdoms on the Euphrates seem to have submitted to Mursilis I without a struggle, allowing the Hittites to arrive unexpectedly at Babylon.

Samsu-ditana, the King of Babylon, was taken completely by surprise by the Hittite attack. Babylon was captured and sacked, and the statues of the national god, Marduk, and his consort, the goddess Sarpanitum, were taken away as booty by the Hittites.

Having gained great prestige from his taking of Babylon, though not having the military resources to keep his conquest, Mursilis retreated back up the Euphrates leaving the statue of Marduk at the city of Hana on the middle Euphrates.

Following the withdrawal of the Hittites, the throne of Babylon was seized first by Gulkishar, the king of the Sealand, and then by the Kassite king, Agum II (kakrime), in c. 1570 B.C. It is possible that the Kassites helped Mursilis I in his attack on Babylon, though once established in Babylon Agum II made clear his intention to rule as a good Mesopotamian monarch by bringing back the statue of Marduk and restoring the shrines of the gods destroyed by the Hittites.

KAMOSE'S CAMPAIGN AGAINST THE HYKSOS c. 1576 B.C.

Against the advice of his nobles, who were quite content with the status quo, the Theban Pharaoh, Kamose, was determined to re-unite Egypt and break the power of the Hyksos ruler, Apophis.

Kamos sailed north with a fleet, while his army marched on the banks of the Nile, preceded by an advance guard of scouting Medjay Nubians. Teti, an Egyptian noble, and one of the many that supported the Hyksos, was besieged in his stronghold of Nefruisi. The Medjay were sent ahead to hold off any Hyksos reinforcements that might be sent. Nefruisi was taken by a dawn attack and its walls were destroyed. Kamose proceeded to Per-Shak, which was in panic (unfortunately part of the account is lost and it is not known exactly what took place there). Kamose continued his advance to Per-Djedken and the 'depot of going South', which was apparently a Hyksos naval base. To attack this position, Kamose formed his fleet in line astern, 'arrayed one after another'. The bodyguard was on the river and Kamose was at the head of the line in a 'ship of gold'. A *mek*-ship was despatched to probe the desert edge, followed by a *djat*-ship, (these presumably being special types of warship).

The Hyksos fleet was found to be in the base, the ships being loaded with produce from Retjennu. It was here that Kamose is recorded as boasting that he would 'take over the chariotry'. The entire fleet was seized and Kamose advanced into the Nile Delta. Here he desolated the lands of the nobles who had collaborated with or supported the Hyksos. At this point Apophis sent a message to the King of Kush, an ally of the Hyksos, requesting him to attack Egypt from the south. Kamose intercepted this message and had it returned to Apophis.

Turning south, Kamose ravaged the Nome of Cynopolis because it was the personal property of Apophis. While there, he took up a position at Sako to protect his rear from rebels (Egyptians serving the Hyksos), and sent a strong force overland to lay waste the Bahariyeh Oasis, west of Cynopolis.

Following this Kamose continued south, crushing every rebel he found until he reached Thebes amid great jubilation.

THE FINAL DEFEAT OF THE HYKSOS c. 1567 B.C.

It was left to Kamose's brother, Ahmose, to complete the expulsion of the Hyksos. Kamose had retaken most of Egypt and Ahmose commenced the siege of Avaris, the Hyksos capital.

During the investment of the city, amphibious operations took place in the canal called Pa-Djedku and in the area to the south of Avaris. Following these events, Avaris was captured. Ahmose advanced into Palestine and besieged the Hyksos stronghold of Sharuhin for three years before it fell, leaving the way clear for future Egyptian advance into Asia.

Ahmose then turned against his southern enemies, defeating the Nubians at Khenntennefer and the forces of Aata, an enemy from further south, at Tint-to-Amun. On returning north, Ahmose defeated the last of the Egyptian rebels, Tety-an.

Ahmose may have penetrated as far as Fenkhu (Phoenicia?) during the course of his reign.

MEGIDDO 1481 B.C.

A coalition of Canaanite and Syrian princes, led by the king of Kadesh, rebelled against Egyptian rule. They prepared to block the advance of the Egyptian army, led by Thutmose III, at Megiddo in the plain of Esdraelon.

The rebels were deployed ready to repel an entry into the plain from north or south. The Egyptians held a council of war at Yehem. Against the advice of his generals, Thutmose decided to approach through the narrow pass of Aruna, which crossed the hills between the northern and southern routes to Megiddo. Advancing on foot at the head of his troops, Thutmose led his forces through the pass. Fortunately for the Egyptians, the rebels had not prepared an ambush. The only action was a skirmish fought by the rearguard of the column at Aruna.

The rebel coalition was completely unprepared to meet an advance from this direction and the Egyptians were able to get their entire force into the plain, and even make camp for the night, while the rebels were altering their deployment.

Early next morning the Egyptian army advanced. The southern wing was on a hill south of 'the brook of Kina', the northern wing was in position north-west of Megiddo, the Pharaoh was in the centre.

The rebels were swept away by the onslaught and fled towards Megiddo. The inhabitants had closed the gates of the city and had to tie their clothes together to make ropes in order to haul the routers up the walls to safety. The Egyptian soldiers were more concerned with looting the enemy camp than taking advantage of their vulnerability.

After the battle Thutmose rebuked the soldiers for this breakdown in discipline. Megiddo was surrounded by a timber palisade and the crops were harvested by the Egyptians. Faced with starvation the city surrendered.

ALALAKH c. 1480 B.C.

While in his youth, Idrimi and his family were forced to flee Khalba (Aleppo) and seek refuge with his uncles at Emar (Meskene) on the Euphrates near Carchemish. Finding little honour in living on the charity of his mother's family, Idrimi left to seek his fortune with only his horses, his chariot and his groom.

After a journey that took him through the lands of the Sutu tribesmen Idrimi arrived in Canaan, where natives of Khalba and nearby territories flocked to join the son of their old ruler, forming a band of *habiru*.

Idrimi lived with his *habiru* for seven years before deciding to return home, building ships to carry his men to the land of Mukish by sea. On landing in his homeland Idrimi gained the submission of his people, though had to fight for seven years against the forces of Paratarna, the King of Mitanni and overlord of Idrimi's lands of Mukish, Niy and Ama'u.

Eventually, Paratarna accepted Idrimi as his vassal and gave him charge of the city of Alalakh. As a vassal of Mitanni Idrimi fought against the Hittites, destroying seven towns, and forced the Sutu within his borders to settle in villages.

NAHARIN 1470 B.C.

After an engagement on the 'heights of Wan', west of Aleppo, Thutmose III reached the 'great bend of Naharin' (the Euphrates south of Carchemish). Thutmose was determined to cross the river as his grandfather, Thutmose I, had done, but this time in greater force, to attack the kingdom of Naharin (Mitanni). Many of the Syrian states that had hitherto opposed Thutmose were Mitannian vassals. Thutmose ordered the transportation of ships overland by ox-cart from the coast, in order to make his crossing. The Egyptian army crossed over and engaged the forces of Naharin at Senzar, where the Egyptians were victorious. This established the limits of the Egyptian Empire on the Euphrates and earned its recognition by the other great powers of the Near East. Thutmose returned through the wilderness of Niy where he was able to hunt Elephants (later hunted by Assyrian kings in this region). He was rescued from an angry beast by the commander of the *kenyt* ('braves'), Amenemhab.

NUZI c. 1450 B.C.

Border raids and skirmishes were common between the kingdoms of Assyria and Arrapha even though both states owed allegiance to the king of Mitanni.

One Assyrian raid on the Arraphan province of Nuzi resulted in seven *dimati*, or manors, being attacked, their sheep and oxen seized and the unharvested barley being burnt in the fields. The Assyrians took away 42 prisoners for ransom or slavery, having killed three men in the attack.

IRRITA c. 1348 B.C.

Tushratta, King of Mitanni, had been murdered by Shuttarna who had then usurped the throne. The dead king's son, Mattiwaza, appealed to the Hittite king, Suppiluliumas, for help. The Hittites seized the opportunity to instal a vassal regime in Mitanni and supplied Mattiwaza with equipment. The Hittite prince, Piyassilis, was placed in charge of the expedition. The two leaders met at Carchemish, on the frontier with Mitanni, and attempted to contact the town of Irrita. This town had been bribed to remain loyal to Shuttarna and would not allow Mattiwaza to re-enter the country. The combined forces of Mattiwaza and the Hittites then crossed the Euphrates and defeated the infantry and chariotry of Irrita which opposed them. This encouraged other cities in Mitanni to acknowledge Mattiwaza, except for the capital, Washshuganni, which had to be re-taken by force.

KARDUNIASH c. 1340 B.C.

Kadeshman-Kharbe, the King of Babylon (at this time known as Kar-Duniash) and the grandson of the Assyrian king, Ashur-uballit I, fought and defeated the Suteans on the fringes of the Arabian Desert as well as strengthening the fortresses in the area during the early part of his reign. However, the Kassites rebelled against him and killed him, placing the Kassite, Shuzigash, on the throne.

Angered by the murder of his daughter's son, Ashur-uballit mustered his army and marched south, defeating the Kassite army and killing Shuzigash. Following his victory, Ashur-uballit placed Kurigalzu, Kadeshman-Kharbe's son, on the throne of Karduniash.

ASTARPA 1336 B.C.

Mursilis II mounted a major campaign to conquer Arzawa. The Hittite forces were mustered at Sallapa, where they were joined by the contingent of the King of Carchemish, a brother of Mursilis. The army crossed the river Sehirya (sangarius) and marched on Arzawa. At this point the troops witnessed a meteorite pass over them, convincing them that the storm-god approved of their cause (this anecdote is probably Hittite propaganda). They were then joined by the King of Mira, who had recently beaten off an Arzawan attack. He informed Mursilis that the Arzawan king, Ukha-zitish, lay in his palace at Apsus (Ephesus?), having been injured when the meteorite landed, and that the Arzawan army under his son, Piyama-radus, was forming up at the river Astarpa on the frontier of Arzawa.

Further elated, the Hittite forces engaged those of Arzawa on the Astarpa and defeated them. During the pursuit and mopping up following the battle, Ukha-zitish and some fugitives fled overseas, while others fled into the mountains of Arinnanda. Here they had to be surrounded and starved out as the terrain was impassable for horses. 15,000 were deported to Hatti as forced labour.

Some refugees fled into the highlands of Puranda, ruled by a son of Ukha-zitish, Tapala-zunaulis. He led his forces out to attack the Hittites but was defeated and pursued back into the hills. Puranda was besieged and its water supply cut off. Tapala-zunaulis attempted to escape by night but was overtaken by pursuing Hittite chariotry.

PIGGAINARESSA 1330 B.C.

Intending to lead a campaign into the land of Azzi-Hayasa, Mursilis II was met at the city of Tegarama by officers, including general Nuwanzas. Being advised by them that it was too late in the year to attack this region, the king decided to make a punitive expedition into the land of Pigiainaressa which had been raiding Hittite territory. The army mustered at Harrana, and by forced marching at night the infantry and chariotry entered stealthily into enemy territory. Several towns were attacked and razed. The inhabitants surrendered and become allies of the Hittites, supplying troops as infantry and chariot-warriors.

HUTUPIYANZAS' DEFENCE OF PALA 1324 B.C.

Prince Hutupiyanzas had been given command of the region of Pala by the father of Mursilis II, Arnuwandas II. It was an undeveloped region without fortified towns, and the prince did not have an army at his disposal. Despite this, Hutupiyanzas held Pala against devastating Kaskaean attacks with only a small group of retainers operating from hide-outs in the mountains. Every attack was defeated, while fortifications were gradually established. Next spring Mursilis II marched in with the Hittite army. Making a baggage depot near the Kaskaean frontier, he advanced to capture the city of Tummanu which guarded a pass into Kaskaean territory. The enemy advance guards were surprised by a feigned retreat and night march, allowing their forces to be defeated and pursued to Mount Kassu.

MT KASSU 1324 B.C.

The Hittite army of Mursilis II (c. 1346-1320 B.C.) was campaigning in the Kaska-lands, which lay to the north of the Hatti-land. The Kaskaean had been pursued to the foot of Mt Kassu where they took up a defensive position on the steep slopes knowing that the terrain was impassable to the Hittite chariotry.

Mursilis personally led an assault by his infantry up the mountain, and the position was taken with heavy loss inflicted on the Kaskaean.

After the battle, the enemy livestock in the area was plundered, and the Hittites returned to their marching camp which had been set up nearby.

SUGAGA Reign of Enlil-narari

Assyrian and Babylonian sources differ as to the date and outcome of the battle of Sugaga, near the city of Sugaga on the Tigris. However, it seems most likely that Enlil-narari (1329-1320 B.C.), son of Ashur-uballit I and the King of Assyria, campaigned in the south against Kurigalzu II, King of Karduniash. Kurigalzu marched north to prevent this and fought the Assyrians at Sugaga, inflicting a heavy defeat on Enlil-narari who lost large numbers of soldiers killed and many officers captured.

It appears that later in Enlil-narari's reign the Assyrians defeated Kurigalzu in two battles.

SAPPIDUWA Reign of Mursilis II, c. 1346-1320 B.C.

The Anatolian prince, Pitaggatalis, with 9000 men, attempted to prevent the Hittite army of Mursilis II from entering the city of Sappiduwa. Leaving his baggage behind, Mursilis advanced in battle formation intending to surround the enemy. He found that he was being observed by enemy outposts who would warn Pitaggatalis, allowing him to escape from envelopment. Mursilis pretended to march away but returned during the night by means of a forced march, arriving outside the city at daybreak. His opponent was taken by surprise and defeated.

ARNUNA Reign of Arik-din-ili

Arik-din-ili, the King of Assyria (1319-1308 B.C.), had a large battering-ram constructed before going on campaign against the land of Nigimhi in the Zagros foothills to the east of Assyria.

The Assyrian army met the forces of Nigimhi while they were apparently carrying off their harvest, however the Assyrians were victorious, capturing 33 chariots — Arik-din-ili leading his chariots in person during the battle.

Esini, the commander of the forces of Nigimhi, fled to the nearby city of Arnuna, which the Assyrians then besieged, destroying its gate with the battering-ram built specially beforehand. The city appears to have surrendered at this point, the nobility of Arnuna taking an oath to Arik-din-ili as their new overlord, though Esini had somehow managed to escape.

KAR-ISHTAR Reign of Adad-narari I

Adad-narari I, King of Assyria (1307-1275 B.C.), established his rule over most of Mitanni (known to the Assyrians as Hanigalbat) as far as Carchemish and completed the conquest of Nigimhi.

Moving south against Karduniash, Adad-narari fought the Kassite king, Nazimuruttash, near the city of Kar-Ishtar. The Kassites were defeated, the Assyrians capturing their baggage camp and their divine-standards.

After this victory the boundary-line between Assyria and Karduniash was fixed further south.

KADESH 1300 B.C.

Ramesses II, leading four Egyptian armies, invaded Hittite territory intending to take the city of Kadesh on the Orontes. The Hittite king, Muwatallis, prepared to stop him with a large army, including allied contingents drawn from throughout the empire.

To approach the city the Egyptians had to cross the Orontes at the ford of Shabtuna. The wood of Rebawy was probably situated on high ground to the south of this ford rather than to the north of it. The Egyptian marching columns were sufficiently long for an army to be crossing the ford and partly in the wood at the same time.

Ramesses detached the leading units of his army to form a 'battle-line' protecting the rest of his forces as they crossed the river. This force was the *ne'arun* 'from the land of Amor'. They have been variously explained as elite allies from Amurru (the Hittites regarded the battle as a defeat for both Egypt and their ally Amurru), or a task-force sent along the coast of Amurru to appear north-west of Kadesh. However, the Orontes may have formed the border between Amurru and Kinza (Kadesh) at this point and the reference in the Egyptian text to the 'shores of Amurru' could refer to the river bank, as the Egyptian word was used for both 'bank' and 'shore'.

At the ford, Hittite agents, pretending to be deserting Shaasu-bedouin, misled Ramesses into thinking that the Hittites were far away at Aleppo, when they were really hidden behind the great 'tel' of Kadesh. This encouraged Ramesses to make haste to reach Kadesh and take it before the Hittites arrived.

The Pharaoh had arrived at Kadesh and the army of *Amun* was making camp when captured Hittite scouts revealed the true position of their army. Meanwhile the army of *P're* (literally 'The Re'), was crossing the ford with its rear, and the *Ptah* column still in the wood of Rebawy. Couriers, including the vizier, were sent to hasten these armies. *P're* was a distance of 1 *iter* (10.5 Km), from Ramesses.

Muwatallis now despatched 2,500 chariots in four bodies across the Orontes by a ford south of Kadesh. They burst through the Army of *P're* and broke into the uncompleted camp of *Amun*. Ramesses was now cut off from the rest of his army.

How the Hittite chariotry managed to conceal their approach and surprise the army of *P're* so completely must remain a mystery, but as they were apparently carrying chariot runners mounted as third crewmen, they may have been able to penetrate between the hastily deploying Egyptian units, isolating them with infantry and chariotry and destroying them piecemeal.

Routing troops from the army of *P're* ran through the camp of *Amun*, spreading panic there also, while the pursuing Hittite chariotry surrounded Ramesses and a remnant of his troops who were attempting to break out. Some Hittites, however, seem to have stopped to plunder the Egyptian camp.

Fortunately for Ramesses, the Hittites were suddenly attacked in the rear by the *ne'arun*. This caused Muwatallis to send in a further 1,000 chariots which he was holding in reserve, perhaps expecting the approach of another Egyptian army. Despite this the *ne'arun* broke through to join Ramesses. The combined force charged into the Hittites six times before finally routing them across the Orontes, assisted by the newly-arrived army of *Ptah*. The Hittites suffered heavy losses from drowning while struggling to cross the river.

It was now dusk and hostilities ceased. Many dispersed Egyptians returned under cover of darkness. Muwatallis remained on the east side of the Orontes throughout the battle with two massive bodies of infantry, one of 18,000 men, the other of 19,000 men. These figures, rather than the 8,000 and 9,000 often quoted, are suggested by the presence of the hieroglyph for '10,000' in the captions to the reliefs. The following day it seems that sporadic fighting resumed, but Muwatallis offered Ramesses a truce (possibly inspired by the arrival of the intact army of *Sutekh*, which is not mentioned as taking part in the battle, being still 'upon the road'). This allowed Ramesses to withdraw rapidly to Egypt. Although the Egyptian army recovered on the battlefield, (which says something for their professionalism), the Hittites won the campaign and were able to seize some Egyptian territory.

This battle must rank among the best documented battles of antiquity. It is recorded in the Egyptian sources in great detail, and Hittite sources for the battle also survive.

SEVEN AGAINST THEBES, 13TH CENTURY B.C.

Many legends recorded by the later Greeks are now considered to be based on actual events that took place during the Mycenaean period. One such concerns a siege of Thebes, in Boeotia, shortly before the Trojan War.

After the death of Oedipus, Eteocles and Polynices contended for the throne of Thebes. Eteocles seized it and Polynices fled to Adrastus of Argos, where he was joined by another exile, Tydeus. These 'heroes' were joined by four more and advanced to attack Thebes. The force presumably consisted of their personal followings and the Argive army. Mycenae declined to take part in the enterprise.

After a long siege a final assault was mounted in which both contenders killed each other. The rest of the besieging forces then withdrew without taking Thebes.

Thebes was later sacked by the Epigoni (the subject of another lost epic) and so does not figure in the 'Catalogue of Ships' recorded in the Iliad.

HANIGALBAT Reign of Shalmaneser I

Shalmaneser I (*Shulmanu-asharedu*), King of Assyria (1274-1245 B.C.), decided to strike westwards against Hanigalbat and its Hittite allies, possibly because the Hittite successes in Syria were seen to threaten Assyrian possessions in the Jazirah.

Moving through difficult paths and passes in Hanigalbat, the Assyrians found that the passes and fresh-water springs in their path had been seized by the army of Shattuara, King of Hanigalbat, in combination with a Hittite army and Ahlamu (Aramaean) mercenaries. Tired and without water the Assyrians were suddenly attacked in force by Shattuara, however, the exhausted Assyrians counter-attacked, defeating the allies and inflicting severe losses, pursuing Shattuara westwards. 14,400 prisoners were taken and blinded in the right eye before being led to Assyria.

This Assyrian success seems to have forced the rapprochement between Egypt and Hatti.

TIWARA Reign of Tudhaliyas IV, a.c. 1265 B.C.

Tudhaliyas IV was in Assuwa, having recently put down the rebellion of Kukkulis, who had incited the Assuwan army consisting of 10,000 infantry and 600 'Lords of the Bridle' (Chariotry) to revolt. While he was there the Kaskaes had taken the opportunity to raid the Hatti-lands. Tudhaliyas rushed back and pursued the Kaska into their own country. He encountered the full forces of the Kaska drawn up for battle at Tiwara. The enemy rear was protected by a wood and their front by a river. Undaunted the Hittites advanced and defeated them. The victory was followed up by the taking of many strongholds described as 'difficult of approach'.

DALAWA End of reign of Tudhaliyas IV

The western Anatolian prince, Madduwattas, was a serious cause for concern to the Hittites. This incident is recorded in a document known as the 'Madduwattas Indictment'. Madduwattas sent a message to the local Hittite general, Kishnapiilis, proposing a combined attack on the cities of Dalawa and Hinduwa in the Lukka lands. Following his part of the plan, Kishnapiilis marched on Hinduwa while the treacherous Madduwattas informed the people of Dalawa of the Hittite position and incited them to mount an ambush. The troops of Dalawa attacked the Hittites, killing Kishnapiilis and another commander, Partuhallas. In this way Madduwattas won over the people of Dalawa into allegiance with him.

KARDUNIASH 1235 B.C.

Seeing that Babylonia was weak following an Elamite victory, Tukulti-Ninurta I provoked a war with Kashtiliash IV and fought him near Karduniash (Babylon).

Kashtiliash was captured during the battle and his army defeated. Babylon was then taken by the Assyrians, its walls destroyed and the city sacked. Both the statue of Marduk and the unfortunate Kashtiliash were sent to Assyria, and Assyrian governors established in Karduniash.

Assyrian control of Babylon lasted seven years until 'the Akkadian officers of Karduniash rebelled'. Tukulti-Ninurta I, who had aroused hostility to his rule in Assyria, was shut up in a room of his new capital of Kar-Tukulti-Ninurta and killed by one of his sons in 1208 B.C.

THE FIELDS OF PER-YER 1231 B.C.

Libyan tribes under their chief, Meryey, together with contingents of Sea-Peoples, invaded the Western frontier of Egypt. Repeated incursions even penetrated as far as the Nile. Pharaoh Merenptah prepared to halt a major invasion attempt in the district of Per-Yer in the Western Delta.

Meryey approached the Egyptians at dawn, but found them deployed with their archers to the fore, supported by close-combat troops and chariotry. The archers shot down the advancing enemy for six hours before halting and finally routing them. The Libyans fled, abandoning their possessions, closely pursued by Egyptian chariotry. Over 9,000 were killed or captured.

The other Libyan chiefs in the coalition were so disgusted with the fiasco that they deposed Meryey and soon fell into fighting among themselves.

ILION c. 1200 B.C.

The Ancient Greeks regarded the Trojan War as a historical event which marked the end of the 'Heroic Age'. Modern research favours a date of around 1200 B.C. for this event and there is archaeological evidence that Troy VII was besieged and sacked. Archaeology and the Linear B tablets help to demonstrate that the background to the Homeric legends is largely correct. The lists of Achaean and Trojan allies correspond to what is known about Mycenaean and Anatolian political geography at this time but is unlike that existing later on. If the Ahhiyawa of the Hittite archives is really a reference to Achaeans, then the activities of Attarsiyas were an earlier attempt at extending Achaean influence into Western Anatolia. Attarsiyas was chased off by the forces of the Hittite Empire, but a generation later this empire was weakening and a confederation of West Anatolian states may have been established.

The cause of the war was traditionally the abduction of an Achaean royal lady by a Trojan prince. This may indicate something of the relations between the Achaeans and Anatolia; the Linear B tablets mention slave women from

East Aegean islands and Miletos, possibly indicating that Mycenaean colonies indulged in slave trading or raids into Anatolia (which had been a cause of friction between the Hittites and Ahhiyawa) and we may note the concern for coastal defence at Pylus.

A massive seaborne expedition was organised by Agamemnon of Mycenae who seems to have been the acknowledged overlord of the Achaean states at this time. Each state supplied a contingent under its own leader. The armada totalled 1176 ships with crews varying between 120 to 50 men. As chariotry and non-combatants would also have been taken the full size of the forces was probably small by Near-Eastern standards.

Unlike the catalogue of ships in the Iliad, the list of Trojan allies provides no figures and much more sketchy information. What is clear is that contingents came from many regions of Anatolia, some being remote and little known to the Achaeans, reinforcing the impression of an Anatolian confederation.

Although the legends imply that the war was directed specifically at Troy, this may simply have been the point chosen for the landings as it was positioned on the Dardanelles, a location of strategic importance controlling the straits and the entry into Anatolia from Europe. It would thus become the point at which the Anatolian States would attempt to halt the invasion. This city would find itself in a vital position like that of Kadesh, Carchemish and Megiddo in other wars. Troy was sacked more than once on this account.

Military operations in the area around Troy continued for ten years. The defenders fought the Achaeans in open battles before the city. At one point some of the Achaean contingents would not co-operate and Agamemnon's authority was questioned. This caused a temporary setback and the Achaeans were contained for a time within a defended beachhead.

Troy finally fell to deception and a device known as the 'Wooden Horse'; (siege machines were often named after animals and sometimes decorated to look like them, a practice for which there is ample evidence from the Near East).

Many legends concerning heroic founders of dynasties trace their wanderings to the sack of Troy, and some of the returning Achaeans encountering trouble at home. It is tempting to speculate that a long period of warfare between the Achaean and Anatolian states led to their collapse and contributed to the phenomenon of the 'Sea Peoples'. The destruction of a powerful state in the European approaches to Anatolia could have grave implications for all the peoples of this region.

HATSHO 1192 B.C.

The Libyan tribes of the Meshwesh, Tjemehu and Seped, led by the chief, Meshesher, advanced towards Egypt intending to settle.

They were met at the frontier fortress of Hatsho by the Egyptian army of Ramesses III. Linear formations of close-order archers followed by lines of close-order spearmen advanced steadily towards the Libyans. Chariotry and javelin-armed infantry (including Sea-People auxiliaries) attacked on the flanks. The garrison of Hatsho assisted by shooting from the battlements.

The Libyans were defeated and pursued for a distance of 8 iter (about 84 Km.), from Hatsho 'to the mount of Horus of the Earth'. Meshesher and 2175 Libyans were slain, 2052 were captured.

THE SEA-PEOPLES CONSPIRACY 1189 B.C.

The great confederacy of Sea-Peoples which had overthrown the Hittite Empire arrived in the land of Amurru and prepared to assault Egypt by land and sea. Their main strength were the Peleset, Tjekker, Sheklesh, Denyen and Weshwesh.

Against this threat, Ramesses III began a massive mobilisation, including the requisition of all kinds of ships which were manned and deployed in the Nile mouths. The land onslaught was to be met on the Eastern frontier.

The Sea-Peoples' armada entered stealthily into the Nile mouths and straight into a trap. The Egyptian fleet closed in behind them, using grappling hooks to capsize their vessels and forcing them towards the shore where massed Egyptian archers were waiting. The survivors were rounded up and taken prisoner as they emerged from the water.

The land body was surprised as they marched with their families and possessions in ox-carts. They were dispersed by charging chariotry supported by runners and Sherden auxiliaries.

BATTLE OF THE ULAI RIVER c. 1120 B.C.

Nebuchadnezzar I (*Nabu-kudurri-usur*) of the Second Dynasty of Isin saw it as his divine mission to recover the statue of Marduk captured by the Elamites under Shutruk-nahhunte on the collapse of the Kassite dynasty in 1157 B.C.

On his first campaign into Elam Nebuchadnezzar reached the Uknu (modern: Kerkha) river though disaster struck when a plague broke out in the Babylonian camp before the arrival of the Elamite army. The decimated Babylonian army lost all discipline and fled in disorder, Nebuchadnezzar nearly losing his life in the process, while the Elamites followed the rout closely.

Carefully waiting until he obtained favourable omens from the gods, Nebuchadnezzar led a second expedition into Elam from the city of Der in the height of summer. The Babylonian soldiers and horses suffered badly from thirst and heat exhaustion, even the road 'scorched like flame', on a journey of over 330 km. to the river Uai (the modern Karun river). The timing of the campaign, and the different northern, as opposed to the previous southern, approach, took the Elamites completely by surprise.

The army of the Elamite king, Hulteludish-Inshushinak, hurriedly advanced to meet the Babylonians, the battle being fought on the banks of the Uai. The two armies raised great clouds of dust because of the hot, dry weather, the light of the sun being totally obscured, so the battle was confused and fought in conditions of semi-darkness. The battle was finally won by a charge of the right-flank Babylonian chariotry, led by the Babylonian border-lord, Lakti-Marduk, which had actually lost contact with the king and the main army during the battle.

The Elamite king died in the battle and the statue of Marduk was recovered, Nebuchadnezzar returning it in triumph to Babylon. This victory established Nebuchadnezzar as a national hero and the pious avenger of Babylonia.

ZANQI AND IDI c. 1118 B.C.

Following his victory in Elam, Nebuchadnezzar I turned his attention to the northern frontier with Assyria. Seeking to reduce the Assyrian border fortress of Zanqi, the Babylonian army, led by the king, included a number of siege engines. However, the Babylonians might have been delayed on the march because of this siege train since the Assyrian king, Ashur-resha-ishi I, was able to muster his chariots and move on Zanqi before the fortress fell. Nebuchadnezzar did not wish to meet the Assyrian army in the field and so the Babylonians retreated, burning the siege engines to prevent them falling into Assyrian hands.

In possibly the same year, Nebuchadnezzar besieged Idi, (present-day Hit, on the Euphrates about 180 km. south of ancient Ashur) an Assyrian city on the frontier, with an army of chariots and infantry. On hearing of this the Assyrian king sent chariots and infantry to strengthen the city's forces, which then attacked the Babylonians. Nebuchadnezzar was defeated, losing his camp, forty fully-equipped chariots, and his field-marshal, Karashtu, to the Assyrians.

KADMUHU 1115/1114 B.C.

The land of Kadmuhi, situated in the Taurus mountains between the Tigris and the Euphrates, rebelled against Assyria and ceased to pay tribute on the death of Ashur-resha-ishi I. At the same time an alliance of five kings of the Mushki, or Phrygians, moved south with 12,000 (variant: 20,000) warriors from the lands of Alzu and Purulumzu (lands conquered by the Mushki fifty years before) into Kadmuhi. In this the Mushki were probably taking advantage of the instability in Kadmuhi, though it is possible that the Mushki were actually to be used as mercenaries by the rulers of the land.

The new king of Assyria, Tiglath-Pileser I (*Tukulti-apli-Esharra*), quickly mustered his chariots and infantry and crossed the Mount Kashiari range (to the east of modern Mardin) without a rearguard, arriving in Kadmuhi probably some time before the Mushki had expected.

The battle took place on level ground, the Mushki being cut down by Assyrian archery and defeated. 6,000 Mushki were taken prisoner and taken to Assyria to be used as either slaves or auxiliary troops.

The land of Kadmuhi was then ravaged by the Assyrians, who defeated the army of Kadmuhi and the allied army of Paphu, capturing their king, Kili-Teshub.

MOUNT BESHRI c. 1110 B.C.

With Assyria's north and north-eastern frontiers secure, Tiglath-Pileser I then campaigned against the Aramean nomads who had crossed the Euphrates into Assyrian territory.

In his first campaign against the Arameans, Tiglath-Pileser I claims to have harried them from the edge of the land of Suhu (on the middle Euphrates) to the city of Carchemish in a single day, a pursuit of some 300 km!

The remaining Arameans fled across the Euphrates, followed by the Assyrians who crossed after them on rafts of inflated goatskins, making a stand in their towns at the foot of Mount Beshri (Jabal Bishri, about 40 km. west of the modern town of Deir-eg-Zor). The Arameans were defeated and six of their towns were sacked.

The Arameans remained exceedingly troublesome, however, resuming their plundering raids and eastward expansion within a few years (during which time Tiglath-Pileser I conquered the land of Musri, around the Gulf of Alexandretta, and their allies the Qumanu). The Assyrians fought 28 wearisome campaigns against the Arameans over the Euphrates, even to the extent of two campaigns in a single year, from Mount Lebanon, to Tadmor (Palmyra), Anat on the middle Euphrates, as far as the Babylonian city of Rapiqu.

The continued Assyrian pressure did however keep the Arameans from moving east in strength and had a side benefit in acquainting Assyria with the cities of the Mediterranean coast. Byblos, Sidon and Arvad sent gifts to the Assyrian king (including a crocodile and a large female ape), which Tiglath-Pileser naturally regarded as tribute! Indeed, Tiglath-Pileser proudly records that he braved the dangers of the deep, travelling on a boat from Arvad to Samurru some 30 km. down the coast, and killing a *nakhiru* or 'sea-horse' with a harpoon of his own design. The Assyrian king was so pleased with his catch that he ordered a replica carved in stone of this 'sea-horse' to be set up in his palace on his return!

The Aramean attacks increased in ferocity following the death of Tiglath-Pileser I, causing the collapse of the Middle Assyrian Empire.

ISHDISH Reign of Tiglath-Pileser I

Tiglath-Pileser I, after the campaign to Kadmuhi, moved against the mountainous and troublesome land of Ishdish. The Assyrian force consisted of thirty chariots escorting trained soldiers riding in personnel carriers (*ga/magarriia*). The Assyrians, including the king, dismounted when the going was rough, riding in the vehicles again when the way was better. Eventually, on Mount Aruma which was impassable for the vehicles, the chariotry were left behind, the king leading his men on foot.

Ishdish was ravaged, the cities burnt, and the land subjected to Assyrian tribute, taxes, and the provision of hostages.

Tiglath-Pileser I also led an army into Shubartu against 4,000 Kaska and Urumu, Hittite auxiliaries who had mutinied and seized several Assyrian vassal cities. On the approach of the Assyrians the Hittite mutineers surrendered to Tiglath-Pileser who incorporated them and their 120 chariots into his army.

NAIRI Reign of Tiglath-Pileser I

Having gained the approval of the gods through divination, Tiglath-Pileser I led an Assyrian army deep into the Taurus mountains against the land of the Nairi. The Assyrians advanced along rough paths and through dangerous passes, cutting paths for the chariots with copper picks. The Euphrates was crossed with wooden bridges, built from trees cut down in the mountains, and the Assyrians penetrated beyond Lake Van before meeting the combined armies of 23 kings of the Nairi. The Assyrians defeated the Nairi, capturing 120 equipped chariots, their cities were burnt and their large herds of horses, mules and donkeys carried off to Assyria.

The Assyrian king spared the lives of the captured kings of the Nairi in return for an oath of their submission, and the surrender of their sons as hostages. A tribute of 1,200 horses and 2,000 cattle was also imposed. The Hittite city of Melidia was also forced into submission, the Assyrians taking hostages and an annual tribute of lead ore.

SURMARRITI c. 1089 B.C.

Around 1100 B.C., Marduk-nadin-ahhe, the King of Karduniash, led a Babylonian raid deep into Assyria while Tiglath-Pileser I was preoccupied with the Ahlamu-Aramaeans. The Babylonians reached as far as Ekallate, only 32 km. south of Ashur itself, which they plundered, carrying off in triumph the Assyrian gods, Adad and Shala. In about the year 1091 B.C. the Assyrians were again defeated by the Babylonians, this time near the Babylonian provincial capital of Irriya on the Assyrian-Babylonian border, east of the Tigris.

After this date, however, the Assyrians counter-attacked with more success. Tiglath-Pileser I led his army across the Lower Zab river, plundering Babylonian towns and territory beyond the river Diyala, and drawing up a battle-line of chariots (mustered from the Lower Zab region) against Marduk-nadin-ahhe, near the city of Arzuhina. The battle appears to have been indecisive, though leaving the Assyrians in sufficient strength to march west into the land of Suhu to sack the island city of Sapi ratu, and Hindanu on the Euphrates, before returning to Ashur.

The following year Tiglath-Pileser I again marched against Karduniash, defeating the Babylonians decisively at Surmarriti, a city on the Tigris north of Opis. Apparently by-passing Opis, the Assyrians marched down the Tigris, capturing Dur-Kurigalzu, the two Sippars, and Babylon, burning the palaces of Marduk-nadin-ahhe and taking large numbers of prisoners. The Assyrians captured Opis on their return march.

Tiglath-Pileser I failed to recover the statues of Adad and Shala, however. These Assyrian gods remained in humiliating captivity until the sack of Babylon by Sennacherib in 689 B.C., when they were returned to their places in Ekallate.

THE AMALEKITES RAID ZIKLAG c. 1000 B.C.

David, a fugitive from the Hebrew king Saul, had entered the service of the Philistine prince, Achish, and had been installed with 600 followers ('Mighty Men') in Ziklag. His task was to harass the nomads on the borders of the Philistine lands. David led his contingent to join the Philistines on campaign against Saul. Fearing treachery, the other Philistine princes would not permit him to participate. David returned to Ziklag to find it smouldering from an Amalekite raid and the families of his men carried off. David resolved to pursue the enemy and rescue them. On reaching the brook of Besor, 200 men who could no longer continue were left behind. The remaining 400 carried on and found an Egyptian servant of the Amalekites who had fallen sick and been left to die in the desert. In return for his life he led David to the Amalekites.

David and his men fell upon them as they were encamped and revelling in their spoils. After a day's fighting the 'Mighty Men' had slain all but 400 young men who escaped on camels. David recovered the spoil and drove off their flocks and herds.

EKAL-PI-NARI 934 B.C.

In the accession year of the Assyrian king, Ashur-dan II, Arameans of the Yausu clan came upstream into Assyria from their strongholds in Babylonia. The Assyrian king mustered his chariots and infantry and attacked their camps in the vicinity of Ekal-pi-nari, defeating them heavily and carrying off their herds and flocks.

Assyria began to recover from the Aramean invasions in the reign of Ashur-dan II, recapturing areas of Assyria around the Lower Zab that had been settled by Arameans, and resettling those Assyrians who had fled from Assyria because of the famine and turmoil caused by the Arameans.

NASIBINA 896 B.C.

During his sixth campaign against the Arameans settled below the Kashiari mountains, Adad-narari II, the king of Assyria (911-891 B.C.), had managed to put Nur-Adad, the Temannite ruler, under siege in the city of Nasibina (situated on the headwaters of the river Habur).

Nur-Adad had prepared Nasibina for the expected siege by digging a moat some three metres wide down to the water-level in the bedrock around the city. The Assyrians maintained the siege from seven redoubts constructed around the city. The siege probably continued for much longer than the Assyrians expected since the king eventually returned to Assyria leaving the *turtanu*, or commander-in-chief, Ashur-dini-amur, to pursue the siege. The *turtanu* tightened the siege to prevent grain getting into the city from outside, digging hidden traps around Nasibina, and having the Assyrian troops shout their war-cries at the defenders to lower their morale.

Nur-Adad appears to have sought terms at this point and surrendered, being taken to Nineveh together with his troops as hostages, and no doubt to fight as auxiliaries with the Assyrian army.

During the reign of Adad-narari II the Assyrian advance on Babylonia was renewed. The province of Arrapha was recaptured and Der, and Babylonian territory between the Lower Zab and the Diyala rivers, brought under Assyrian control. On the Euphrates, the fortresses of Zaqi and Idi were recaptured, and Assyrian armies ravaged most of Babylonia. However, after 893 B.C. the Babylonians under Nabu-shuma-ukin I defeated the Assyrians, prompting an exchange of daughters in marriage, and a peace-treaty reducing Assyria's territorial gains.

THE REVOLT OF AMEKA AND ARASHTUA 880 B.C.

Early in 880 B.C. a report was brought to Ashurnasirpal II (*Ashur-nasir-apli*) at Nineveh that the Zamuan rulers, Ameka and Arashtua, had not supplied their tribute, or men for royal service. On the first of *Sivan* (May-June) Ashurnasirpal II mustered the Assyrian army, moving to the city of Kalizi, crossing the Lower Zab, entering the Babit pass and crossing the Radanu river before the muster was complete. The king waited for a day at the foot of Mount Simaki for the rest of the army to catch up, and received the tribute of the land of Dagara — this being in the form of provisions for the army (oxen, sheep and wine).

However, before the main army arrived at Mount Simaki, Ashurnasirpal broke camp taking only his heavy chariots, the cavalry, and the crack troops (*asharittu*). Ashurnasirpal marched all day and all night, crossing the Diyala river at dawn and arriving before Arashtu's capital, Ammali, at first light. In a surprise assault the Assyrians took and sacked the city, killing 800 enemy warriors and taking many prisoners. Once the main body of the army arrived, the countryside and neighbouring territories were ravaged, some 42 towns being plundered.

Having devastated Arashtu's cities the Assyrians marched on Zamru, Ameka's capital, situated deeper into the Zagros mountains. Ameka did not wait to greet his erstwhile overlord but fled into the mountains. Pausing only to loot Ameka's palace and take possession of his chariots, Ashurnasirpal chased the Zamuean from mountain to mountain. On Mount Etini, Ameka was forced to leave behind several valuable and bulky, bronze casseroles, bowls and tubs in order to escape the closing Assyrians. Between Mount Su and Mount Elaniu the Assyrians caught and massacred many of Ameka's warriors, while Ameka finally abandoned all the possessions he had taken from Zamru, his provisions and his horses, and fled up the highly inaccessible Mount Sabua.

Ashurnasirpal then set about plundering Ameka's cities. While destroying the city of Parsindu, the Assyrian king put the cavalry and light troops in ambush and caught some of Ameka's troops out in the open, killing 50 and capturing 20 (who were tortured to death). Before his return to Assyria the king led a raid, using the cavalry and light troops only, on the land of Arzizu. The campaign ended with the Assyrian army cutting its way through Mount Lara to form a road for the chariotry. More tribute and tax were imposed on the unfortunate Zamueans, and neighbouring lands hurried to present their own tribute. The final action of the campaign was an attack on various fugitives on Mounts Aziru and Simaki, where 500 enemy warriors were slain. The old city of Attila was rebuilt and used to store barley and straw to provision Assyrian forces in Zamua.

KARKAR 853 B.C.

Shalmaneser III (*Shulmanu-asharedu*) of Assyria made many attempts to conquer the powerful Aramaean and Neo-Hittite states of Syria. In his 6th regnal year, he mustered his forces at the recently captured city of Til-Barsip, now re-named Kar-Shalmaneser, and they crossed the flooded Euphrates on rafts supported by inflated goat-skins. The countries immediately west of the river, including Carchemish, submitted, and the Assyrian army proceeded unhindered to Aleppo. Resistance began when they entered the territory of Hamath. At Karkar, Shalmaneser encountered the combined forces of Damascus, Hamath, Ahab of Israel, Que, Musri, Irqanata, Arvad, Usanata, Shian and Gundibu, an Arab chieftain, led by Hadadezer of Damascus. It was an enormous army, comprising a total of 3,940 chariots, 1,800 cavalry, 65,000 infantry and 1,000 Arab camel-riders, drawn up for a 'decisive battle'.

Shalmaneser claimed to have defeated them and slain 14,000 enemy soldiers, but it seems probable that at the very least, the Assyrian army was halted. Hamath and Damascus remained to fight another day.

RAMOTH-GILEAD c. 850 B.C.

Ahab of Israel and Jehoshaphat of Judah made common cause to retrieve Ramoth-Gilead from the Aramaean state of Damascus, ruled by Ben-Hadad. Possibly worried by prophecies made before the campaign, Ahab disguised himself before going into action. The army of Ben-Hadad contained a large force of chariotry commanded by 32 'captains'. They were instructed to 'fight not with small nor great, save only with the King of Israel'. During the battle the Syrian chariotry mistook Jehoshaphat for Ahab and concentrated their attacks against him. They immediately broke off when they realised their mistake.

Meanwhile Ahab had been wounded by a chance arrow that had penetrated between the scales of his corslet. The king remained standing in his chariot for the rest of the battle in order to maintain command of his army and not dishearten them by leaving the field. Slowly bleeding to death, he died at dusk and the Israelites and Judeans withdrew.

THE REVOLT OF MARDUK-BEL-USATI c. 850 B.C.

Soon after the accession of Marduk-zahir-shumi I as King of Babylon, his younger brother, Marduk-bel-usati, led a widespread revolt which he was unable to quell. However, an alliance with Shalmaneser III of Assyria, made in his father's time, was still in force, and in 851 B.C. he called on Assyrian aid.

Shalmaneser marched south with an Assyrian army and defeated the rebels in their Diyala stronghold at Me-Tumat, before moving to Gamanate and defeating Marduk-bel-usati in the field. The Assyrians failed to take the city, and could only adopt a 'scorched-earth' policy in the surrounding countryside and dam the Diyala river.

Next year, on the 20th of *Nisan*, Gamanate fell, but Marduk-bel-usati escaped into the Zagros mountains. The Assyrians pursued him to Awan, capturing the city and defeating Marduk-bel-usati with Babylonian help. Shalmaneser then turned his attention on the rebellious Bit-Dakhuri, a Chaldean tribe settled in Babylonia. This resulted in the submission of the Bit-Amukhani and Bit-Yakin tribes as well.

Mt SENIR 841 B.C.

Shalmaneser III attempted to conquer Damascus again in his 18th year. The Assyrian army encountered the numerous army of Hazael of Damascus at Mt Senir (in the Golan Heights), and defeated them. 16,000 of Hazael's soldiers were slain and 1,121 chariots, 470 cavalry horses and the camp, were captured by the Assyrians. Hazael escaped to Damascus and successfully resisted the ensuing siege.

PERPEG 730 B.C.

Namlot, prince of Hermopolis and vassal of the Kushite king, Piye (Piankhy), defected to the 'Libyan' Pharaoh, Tefnakhte. Piye responded by sending an army under the generals Puren and Lemersekeny to recapture the province.

Tefnakhte sent a fleet manned by soldiers from Lower Egypt up the Nile to assist Hermopolis but it was engaged on the river by Piye's forces at Herakleopolis and defeated. The remnants crossed to Perpeg followed by the Kushites, who inflicted a further defeat, causing them to flee north.

The Kushites proceeded to besiege several towns with battering rams until Piye himself arrived to hasten operations. Hermopolis was surrounded by an embankment and attacked with a wooden tower, enabling archers and slingers to shoot into the town continuously.

Closely invested in this way, the town became 'foul to the nose' and in due course surrendered.

MEMPHIS 730 B.C.

Following the fall of Hermopolis, Piye advanced north receiving the submission of every city until he arrived at Memphis. The city was determined to resist, having raised a new rampart and stocked up with provisions. Tefnakhte arrived at night with reinforcements numbering 8000 men. He ordered the city to hold out at all costs and left on horseback to rally support from the Delta princes.

Piye called a council of war to discuss how to capture the most strategically important city in Egypt; 'the balance of the two lands'. The generals suggested a siege ramp and a tower made from the masts of ships. Piye did not think that there would be time for such operations. Instead he sent the Kushite fleet into the harbour of Memphis to seize any ships that were there.

These craft were filled with troops and used to mount a massive assault on the city from its undefended side facing the Nile. With the fall of Memphis, the entire Delta including Tefnakhte submitted to Kushite rule.

RAPIHU 721 B.C.

Alarmed at Assyrian expansion in Syria and Palestine, the Egyptians encouraged rebellions, promising military assistance. In 721 B.C. Hanno, King of Gaza, rebelled, supported by an Egyptian army commanded by a certain general, Sib'e. The allies marched out from Rapihu (Raphaia) for a 'decisive battle' with the Assyrian army of Sargon II.

The Egyptian army 'disappeared' shortly before battle was joined, abandoning the unfortunate Hanno to defeat and capture. Sargon subsequently received tribute from 'Pharaoh', Samsi (an Arabian queen), and It'amar of the Sabaeans (Sheba).

DER 720 B.C.

In 722 B.C., a chief of the Chaldean tribe of Bit-Yakin, known as Merodach-Baladan (Marduk-apla-iddina), set himself up as King of Babylon. He was supported by Humbanigash, King of Elam. Problems of the royal succession had preoccupied the Assyrians while this was happening, but in 720 B.C. the new king, Sargon II, marched into Babylonia.

The Elamite army advanced to support their ally and met the Assyrians at Der, where according to the Babylonian chronicle, a major defeat was inflicted on the Assyrian army and they were forced to retreat. Merodach-Baladan and the Babylonian army which had marched to assist the Elamites, arrived too late for the battle.

Mt SIMIRRA 714 B.C.

Sargon II of Assyria led an expedition deep into the mountains east of Assyria, intending to break the influence of Urartu in these regions, and march straight through Urartu in a huge arc. At Mount Simirra, Sargon encountered the combined forces of Rusas I of Urartu and his ally, Metatti of Zikirtu. The Urartian forces consisted of the king and his royal contingents, including cavalry and infantry, those of Zikirtu being an advance guard only of cavalry and elite infantry. They were deployed in a mountain defile, which may have restricted their cavalry, and were formed up in two separate commands.

Sargon attacked with a single chariot (his own) accompanied by his bodyguard cavalry (*qurubuti sha pithalli*). The Urartians were beaten back by the combined shooting and hand-to-hand combat of the Assyrian cavalry, Rusas being besieged on the battlefield with his retinue and eventually fleeing on a mare. Turning next on the troops of Zikirtu, the Assyrians broke up their formation and proceeded to destroy the individual contingents.

Sargon allowed the survivors to flee without pursuit, so that they would spread the news of their defeat throughout the mountains. He may have been intending to avoid losing control of his troops in difficult terrain and to prevent the enemy regaining their confidence by any minor successes using guerilla tactics.

MUSASIR 714 B.C.

Towards the end of Sargon's great march through Urartu, it appears that the king had to allow the main part of his army to return to Assyria, while he remained with his elite troops and marched on the city of Musasir. This city housed the temple of the Urartian war god, Haldi, which Sargon proceeded to sack, carrying off an enormous amount of treasure, mainly votive offerings. Rusas I of Urartu, on hearing the news, took his own life through shame. There had been an eclipse of the moon shortly before Sargon attacked, which Assyrian astrologers had pronounced favourable. Perhaps his army had not been convinced. Several years later, Sargon was killed while leading a campaign into the highland country of Tabal. This may have made a lasting impression on his son and successor, Sennacherib, who, throughout his reign, avoided leading an army in person.

CUTHA AND KISH 703 B.C.

Sargon II eventually succeeded in driving out Merodach-Baladan and assumed the kingship of Babylon himself. Following Sargon's death, Merodach-Baladan planned a revolt which he hoped would be synchronised with a revolt by Assyria's vassals in Palestine, counting on the support of Elam in Babylonia.

Sennacherib (*Sin-ahhe-eriba*) despatched his army against Babylon, having already put down the revolt in Palestine which had broken out too early for Merodach-Baladan. However, he did have the support of the Elamites, and their commander, Imbappa, sent a force of light troops and cavalry forward to Cutha in order to hold up the Assyrian

advance and force them to lay siege to the city. They could not risk having a hostile (and highly mobile) enemy force in their rear. The main Elamite and Babylonian army was to remain at Kish, commanded by the general Tannanu. They would advance and attack the Assyrians while they were involved in siege operations and relieve Cutha.

In response to this strategy, the Assyrians divided their forces also, sending their main force to Cutha and an advance guard to Kish to delay the main enemy army until Cutha had been taken. The advance guard managed to hold for one day and then sent couriers to the main Assyrian army for reinforcements. The following day, the main force made a direct assault on Cutha and took it. Then they advanced immediately to Kish.

The Elamites and Babylonians were defeated at Kish, and Merodach-Baladan fled into the marshes of Southern Babylonia.

ELTEKEH 701 B.C.

Hezekiah, King of Judah, had joined a rebellion of Assyrian vassals in Palestine and on the Levantine coast. Faced with the approaching Assyrian army, he called on the Kushite king of Egypt, Taharqa, for help. With a note of surprise, the Assyrian annals record that an enormous army consisting of archers, chariotry and cavalry of the King of Kush and chariotry supplied by the petty princes of Egypt, had actually come to his aid. The Assyrian army came upon their battle-lines drawn up in the plain of Eltekeh. Assyrian victory was made possible by the defeat and capture of the Egyptian and Kushite chariotry.

Sennacherib's army, led by the *Turtan*, laid siege to Jerusalem, but Hezekiah stubbornly resisted and the Assyrians had to content themselves with ravaging his kingdom. Jerusalem did not fall.

HALULE 691 B.C.

Mushezib-Marduk, supported by the Aramaean tribes of Babylonia, seized the throne of Babylon. To help him to withstand the inevitable Assyrian reaction, he hired the support of the Elamite army under Huban-Immuna. Sennacherib sent an army as expected, and the Elamite army, accompanied by an 'enormous host of allies', marched into Babylonia to join up with Mushezib-Marduk. They deployed in the path of the Assyrians at Halule on the bank of the Tigris.

According to the annals of Sennacherib, the enemy were attacked 'on flank and front' and their advance halted. They were reduced by archery, Humbanundasha, the Elamite field-marshal, and many Elamite nobles being slain. The battle was clearly a long-fought, desperate and confused affair, with horses and chariots whose riders had been slain early in the battle, careering about the battlefield. Sennacherib claims 150,000 enemy losses, with the kings of Elam and Babylon being pursued from the field by chariotry and cavalry.

However, the Babylonian chronicle, generally regarded as an unbiased source, states simply that the Elamites 'caused an Assyrian retreat'. It would seem that Sennacherib failed to re-assert his control in Babylon until 689. In that year the king of Elam became ill and Mushezib-Marduk was denied his formidable support. The Babylonians were eventually defeated and Sennacherib swept aside the restraint and respect that his predecessors had shown to Babylon, allowing the city to be thoroughly sacked and the statues of its gods carried off to Assyria. His son, Esarhaddon, was installed as governor.

It is interesting to note that a few years later, Sennacherib was assassinated by rebellious sons while praying in a temple. He was clubbed with the statues of gods.

ISHUPRI 671 B.C.

Constant Egyptian intrigues with their vassals in Palestine finally forced the Assyrians to take decisive action. The first attempt at invasion was mounted by Sennacherib, but the campaign was abandoned when the Assyrian camp was ravaged by plague on the frontier of Egypt. A second campaign mounted by Esarhaddon in 673 also failed. It is not recorded in Assyrian annals but the Babylonian chronicle states bluntly that on 5th *Addar*, 'the army of Assyria was defeated in Egypt'.

In 671 B.C. Esarhaddon (*Ashur-aha-iddin*) marched on Egypt again. He encountered determined Egyptian resistance led by Taharka, fighting continuously from Ishupri to Memphis, a distance of 15 days' march. The Babylonian chronicle records that three great battles were fought before Memphis fell to the mines, breaches and assault-ladders of the Assyrians on 22nd *Du'uz*. Taharka escaped to Thebes.

KARBANITI 668 B.C.

In 669 Taharka advanced down the Nile from his refuge in Thebes, overthrew the Assyrian governors, and established himself as Pharaoh again in Memphis. Esarhaddon's expedition to remove him was cut short when the king fell ill and died at Harran. His son and successor, Ashurbanipal (*Ashur-ban-aplu*) was left to resolve the problem of Egypt. He organised a campaign and mobilised the forces of 22 vassal kings along the Levantine coast. Using ships supplied by these vassals, support was rushed to his garrisons in Egypt by sea as well as land.

The Assyrian army defeated the Egyptians in open battle at Karbaniti, on 'the wide plain'. Taharka retreated to Thebes, while the Assyrians occupied Memphis and received the submission of the Egyptian petty princes. These were re-installed as vassals despite having supplied contingents for Taharka at Karbaniti. It seems that the Assyrians found it difficult to control Egypt, partly due to the long lines of communication back to Assyria and perhaps also to the cultural and political environment there.

The main Assyrian army returned to Assyria leaving behind stronger garrisons, including a force to pursue Taharka, making use of the ships which he had abandoned at Memphis. The Assyrians had realised that their opponent was simply conducting a strategic withdrawal, relying on the great length of the Nile valley and the Assyrians' over-stretched lines of communication to allow him to regroup. After a journey of one month and ten days, the Assyrians reached Thebes, but Taharka seems to have evaded them by moving his forces to the other side of the river.

The Egyptian vassals viewed these events with alarm; 'they are driving out Taharka, how can we remain?'. They planned an insurrection while the Assyrians were still occupied in the south, but the Assyrian governors discovered the plot, suppressed it and sent the ringleaders to Nineveh. Only Necho of Sais (father of Psamtik I) was spared and retained as chief vassal in Egypt. This extraordinary leniency suggests that the Assyrians needed to rule through a native potentate to secure their hold on the country. Ashurbanipal was probably employing the principle of 'divide and rule' by setting up the Saite Dynasty as his vassals in opposition to the Kushites. Thus Necho's and Ashurbanipal's interests became the same, to resist the Kushites, with the added advantage that Assyria now had to deal with only one Egyptian prince and not several. The Assyrians referred to Egypt as 'musri'.

THE SACK OF THEBES 664 B.C.

Taharka was succeeded by his brother, Tanutamun, who embarked on yet another attempt to regain the throne of Egypt and advanced down the Nile, isolating and besieging the Assyrian garrison in Memphis. Obviously the Assyrians had been unable to remove the Kushite threat with their operations three years earlier. This time Necho opposed the Kushites, but perished in the attempt. Ashurbanipal promptly marched on Egypt and defeated Tanutamun in open battle, forcing yet another retreat to Thebes. The pursuit was pressed 'over difficult trails', but Tanutamun withdrew further south to Kipkipi. The Assyrians, exasperated, sacked Thebes and 'levelled it like a flood'. The Kushites made no further attempts to regain Egypt.

ULAI 655 B.C.

The throne of Elam was usurped by a certain Teumman (*Teht-Humban*), who demanded that Ashurbanipal extradite the fugitive sons of the previous king, Urtaki. When Ashurbanipal refused, the Elamites, in alliance with the Aramaean tribe of Gambulu, marched against Assyria. The Assyrian army advanced to meet them, but when the Elamites heard that the Assyrians had reached Der, and seemed to be closer than they had expected, they retired towards Susa. They took up a defensive position in the plain of Susa, on the river Uлай, near the town of Tulliz.

The Elamites were utterly defeated in a hard-fought battle, their fleeing and fallen soldiers choking the river Uлай. Teumman was wounded and tried to escape in a wood, but his chariot overturned, and his pursuers caught up with him. He was slain and his head was brought back by an Assyrian camp follower.

Elam was divided and placed under the rule of two Assyrian vassals. However, Ashurbanipal had to invade Elam again when the Elamites joined in the revolt of Shamas-shuma-ukin. In 639 B.C. Elam was devastated by the Assyrian army and the capital, Susa, was sacked. A vast amount of booty which the Elamites had accumulated over centuries of plundering Babylonia, was discovered and returned to Mesopotamia.

THE REVOLT OF SHAMASH-SHUMA-UKIN 652-648 B.C.

Esarhaddon of Assyria, perhaps remembering the difficulties he had in securing his throne after the assassination of his father, Sennacherib, had made secure arrangements for his son, Ashurbanipal, to succeed him. Another son, Shamash-shuma-ukin, was to become King of Babylon. The whole Assyrian Empire was made to swear an oath of allegiance to these princes. These arrangements worked well enough for many years until, in 652, Shamash-shuma-ukin rebelled, hoping for the support of Elam, the Phoenicians, Judah, the Arab tribes, the Gutti and the Chaldeans.

Ashurbanipal waged war in Babylonia for two years before laying siege to Babylon itself. The city held out for a further two years until forced to surrender due to starvation. Shamash-shuma-ukin shut himself up in his palace and set fire to it, in so doing giving rise to the legend of Sardanapalus.

KABLINU 616 B.C.

The Babylonian army under Nabopolassar (*Nabu-apal-usur*) advanced up the Euphrates into Assyria. After receiving the submission of the outlying regions of Sukhu and Khinanu, the presence of the Assyrian army was reported at Kablinu. The Babylonians advanced to meet them, and on 12th Ab engaged and defeated the Assyrians and their Mannaean allies.

Eventually, the Babylonians began their return march, followed by the Assyrian army reinforced by the Egyptian army. They reached Kablinu, and continued after the Babylonians, catching up with them at Madanu, near Ar-rapha. The Assyrians may now have been without their Egyptian allies, due to Nabopolassar's success in avoiding a battle. At Madanu, the Babylonians defeated the Assyrians and pursued them across the Lower Zab, they then continued their homeward march in safety.

ASHUR 615 B.C.

The Babylonian army invaded Assyria again, advancing up the Tigris and encamping before the city of Ashur. The Babylonians attempted one unsuccessful assault before the Assyrian army, under Sin-shar-iskun, marched to its relief, forcing Nabopolassar to retire. The Assyrians followed them along the banks of the Tigris, but Nabopolassar took refuge in the city of Takritain. The Babylonians resisted Assyrian assaults for 10 days, inflicting heavy losses on the besiegers. The Assyrians then abandoned the siege and retired.

In the following two years, the Medes under Kyaxares attacked Assyria and in 614 captured Ashur.

THE FALL OF NINEVEH 612 B.C.

Nabopolassar and Kyaxares joined forces and, together with Scythian allies, advanced to Nineveh. Three battles were fought in the open before the city was besieged. Nineveh fell to a single overwhelming assault. The Assyrian king, Sin-shar-iskun, and his highest officers perished. Nineveh was sacked and turned into 'a mound and a ruin'. Some Assyrian troops managed to escape and Ashur-uballit was crowned the last king of Assyria in Harran.

HARRAN AND CARCHEMISH 609-605 B.C.

In 609 B.C. an 'enormous Egyptian army', led by Necho II, crossed the Euphrates to link up with the Assyrian army of Ashur-uballit, which was desperately trying to defend the remnants of the Assyrian Empire. The Assyrians had abandoned Harran to the Babylonians in the previous year and were intending to re-capture it with Egyptian help. It seems that the Assyrians had requested Josiah of Judah to allow the Egyptians to pass through his land, but Josiah, intent on demonstrating his own sovereignty, attempted to stop them at Megiddo. Josiah fell to an Egyptian arrow while drawing up his battle line, and failed to stop the Egyptians. The Assyrians and Egyptians defeated the Babylonian garrison of Harran in open battle before the city, and then besieged it for three months. One assault was attempted but with no effect. The arrival of the main Babylonian army under Prince Nebuchadrezzar, and the advanced stage of the campaign season forced the Egyptians to withdraw. The Euphrates became the new defensive line against Babylon, with the key crossing-point of Carchemish in Egyptian hands.

From 607 B.C. Prince Nebuchadrezzar made several attempts to cross the Euphrates without success, until Carchemish fell in 605 B.C. The main Egyptian army escaped destruction at Carchemish, but was overtaken and defeated near Hama (Homs). Syria and Palestine were now open to the Babylonians and Egypt would soon be defending her own borders. It spelt the end for Assyria.

MIGDOL 601 B.C.

The Babylonian army, led by Nebuchadrezzar II, marched to the Egyptian frontier. There they were engaged by the Egyptian army near the fortress of Tjel, also known as Mekter (Migdol). According to a Babylonian source, the two armies inflicted heavy losses on each other in a fiercely-fought open battle. The Babylonians turned back and returned to Babylonia, where Nebuchadrezzar remained and 'organised' his chariots and horses throughout the following year.

IRASA AND MO-MEMPHIS 570 B.C.

Pharaoh Apries (*Ha-ib-re*, 'Hophra') sent an army consisting only of native Egyptians to assist the Libyan chief, Adicran, against the Greek colony of Cyrene, which was encroaching on Libyan territory. Apries was probably loath to send his Greek mercenaries to fight a Greek colony.

The Egyptians were utterly defeated at Irasa. The survivors returned to Egypt convinced that they had been deliberately sacrificed by Apries, who was suspected of favouring the Greek mercenaries over Egyptians in the army. The Egyptian element in the army mutinied.

Apries sent Amasis (*Ahmose II*) to quell the rebellion, but he was proclaimed Pharaoh by the troops and joined them. Apries then sent Patarbemis to arrest Amasis, but he failed and was executed by Apries. As Patarbemis was popular in the land, Apries lost all native support and was left only with his Greek mercenaries.

Amasis seized Memphis and set himself up as king. Apries moved south to attack him with troops on land and in ships. Amasis defeated them at Mo-Memphis. After protracted fighting in the Delta, Apries was captured and executed.

Herodotus's account of the civil war is supplemented by the Elephantine stela of Amasis. The Demotic Chronicle portrays Amasis as a king with quite a strong personality, a heavy drinker, but a competent ruler. He probably came from quite a lowly background.

NEBUCHADREZZAR II'S ATTEMPTED INVASION OF EGYPT 568 B.C.

Possibly hoping to benefit from the civil war in Egypt, Nebuchadrezzar II of Babylon attempted an invasion. Amasis, the Egyptian Pharaoh, seems to have secured the country before the Babylonians attacked, and mobilised his army which included numerous Egyptians, chariotry and troops from 'distant regions which are in the midst of the sea' (perhaps Greek mercenaries?). The exact result of the ensuing engagement is unclear, and the Elephantine stela of Amasis contains descriptions of troop movements which may refer to this invasion attempt rather than the civil war. However, the Egyptians probably won, or effected a Babylonian retreat, as Amasis went on to strengthen his hold on the country, the Saite Dynasty remaining in power until the Persian conquest.

THE FALL OF BABYLON 539 B.C.

The last Babylonian king, Nabonidus (*Nabu-Na'id*), led an army to the oasis of Tema, deep inside Arabia, and for unknown reasons remained there for ten years, leaving his son, Bel-shar-usar (Belshazzar), as regent in Babylon. Meanwhile the Persian king, Cyrus the Great, took over the Kingdom of the Medes, and in 547 B.C. accomplished the conquest of Lydia.

Nabonidus returned from Tema, but it seems that he was unpopular in many parts of Babylonia, possibly for neglecting religious duties. In 539 B.C. Cyrus led his army into Babylonia, capturing the city of Opis by assault, and Sippar without opposition. At this point, Nabonidus savagely put down a revolt by the 'confused' inhabitants of Babylonia. Shortly afterwards, the Persian army commanded by Ugbaru (Gobryas) marched into Babylon itself. According to Herodotus, the course of the Euphrates had been diverted to allow them to pass through the walls along the river bed. The Persian army entered without opposition and occupied the city. When Cyrus himself arrived, green fronds were laid down in front of him, and it is possible that he was welcomed by the disaffected Babylonians. Nabonidus was found in Babylon and put to death.

DRESS AND EQUIPMENT

General Notes:

Judging by the paintings, reliefs, statuary and physical remains of the peoples of the ancient Near East it is clear that they closely resembled their modern counterparts in appearance. Their complexion was heavily tanned by the sun, generally reddish-brown in the case of Egyptians, and hair was black, or very dark brown, and wavy. In Egypt, men were usually clean shaven from the Old Kingdom onwards but soldiers would acquire stubbly beards on campaign. Elsewhere in the Near East all men, apart from eunuchs, generally had beards, the growing of which was a sign of manhood.

By far the most common forms of dress were white woollen or linen garments, which would obviously vary in shade and quality.

Metalwork in the third millennium B.C. could be copper or bronze, and was mainly bronze thereafter until the late second millennium. In Egypt, iron was never very much in evidence until the end of the Pharaonic period, although iron had come into widespread use for tools, weapons and armour elsewhere in the Near East by the first millennium B.C.

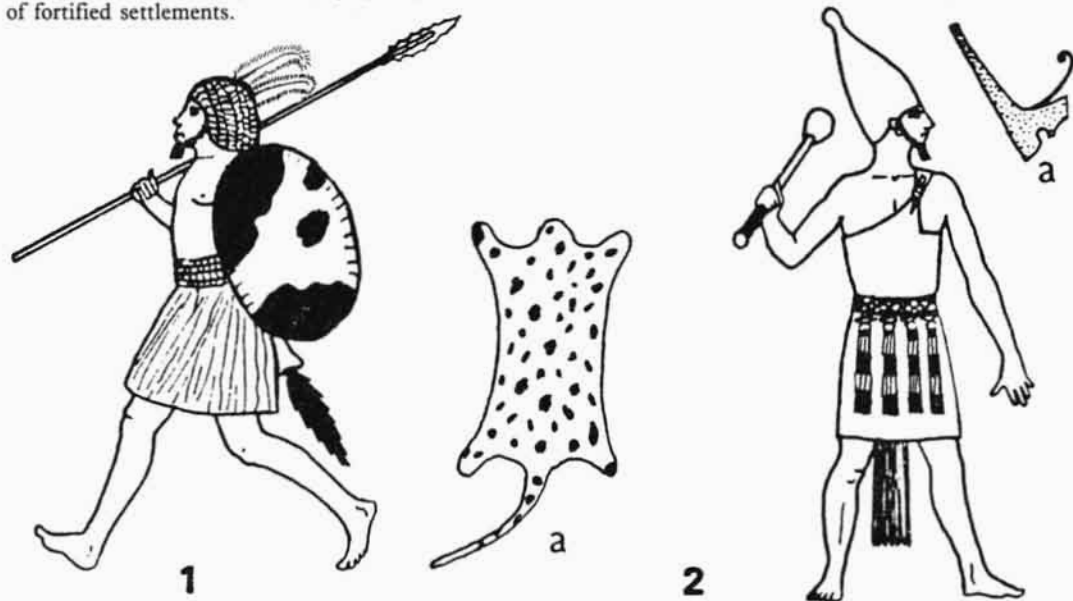
1. PREDYNASTIC EGYPTIAN WARRIOR

This figure is derived from the so-called 'Hunters Palette'. There are features of his appearance which bear comparison with the Libyans. Many warriors at this period would have appeared similar to figure 49.

He wears two ostrich plumes in his hair, which has been plaited or decorated with mud. The distinctive beard was common at this time but was later to become a symbol of royalty and divinity, as did the animal tail (which contemporary Mesopotamians usually attached to arrow-quivers).

The shield (1a) is an animal hide stretched over a frame and has not yet acquired the typical Egyptian shape which appears in hieroglyphs of 1st Dynasty date. The change probably occurs with the invention of close-order formations and military drill. 1a shows a variant form of shield that was to become closely associated with the nomadic peoples of Syria.

Weapons included stone-tipped spears, simple stave bows, throwsticks, flint knives, and maces with disc-shaped, and later pear-shaped, stone heads. Arrows were made of reed with hardwood footings and tips. The tips might be painted red to guide them magically to blood. Paintings on pottery depict large ships manned by rowers, and slate palettes (used for grinding eye-paint) are often decorated with battle scenes, some showing the destruction of fortified settlements.



2. EARLY DYNASTIC PHARAOH c. 3000 B.C.

This figure is based on a representation of Narmer, a king of Upper Egypt who conquered a Delta region during the wars of unification. Similar dress is worn by the 3rd Dynasty king, Sekhemkhet, in carvings from the Wadi Maghara in Sinia. The beard and animal tail are already trappings of royalty. He wears the traditional 'White Crown' of Upper Egypt. An early relief in the Cairo Museum shows this to have been a wickerwork construction of woven papyrus. The 'Red Crown' of Lower Egypt, shown in 2a, would be similarly made. After the unification, these crowns were symbolically combined to form the 'Double Crown', as worn by figure 9.

His linen or leather garment fastens at one shoulder. Over this he wears a beadwork belt from which hang bead panels suspended by gold heads of the cow-goddess, Hathor. He wields a ceremonial mace with a pear-shaped, stone head. One of the ritual acts following a victory was for the king to slay the enemy chief with his mace.

3. OLD KINGDOM EGYPTIAN ARCHER c. 2551-2528 B.C.

This archer is taken from a fragment of a battle-relief, originally from the Great Pyramid complex of Khufu at Giza, which had been re-used in a later pyramid. The scene shows two ranks of archers, the front rank kneeling to shoot while the rear rank stands.

Closely cropped hair was a common fashion at this time. His only protection consists of white cloth bands crossing his chest, shoulders and midriff. This is a common item of uniform throughout the Old and Middle Kingdom, and may have been derived from Mesopotamian practice.

He uses a simple stave bow called a *pedjet*, the origin of the later term for a military formation. Arrows, called *sunet* or *setu*, had reed shafts and footings with tips and nocks of hardwood. Arrows were grasped in the hand when marching as quivers were seldom used.

The bodies of several soldiers who fought for Mentuhotep II, interred near the king's tomb at Deir El Bahari, exhibit some very severe wounds inflicted by such arrows. It is possible that they were shot at close range from a high angle, as might happen to attackers in a siege.

4. OLD OR MIDDLE KINGDOM EGYPTIAN SPEARMAN

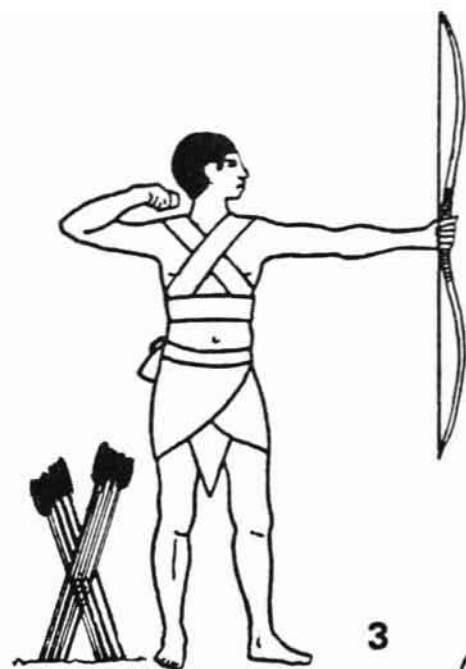
This soldier is based on model spearmen from the 12th Dynasty tomb of Mesehti at Asyut. He is probably typical of the majority of provincial troops conscripted from the peasantry. The shield, or *ikem*, was made of wood and covered with bull-hide. Figures 4b to 4h illustrate some typical shield patterns. 4c and 4e show bands of stitching fastening the sections of hide together. 4b, f and g seem to have an extra piece of hide fixed vertically down the centre of the shield. 4c is a black spotted hide. 4d could be a white or buff hide with black or brown blotches. 4h has white blotches on a black ground and could be painted in imitation of hide, allowing diversion from natural patterns. There were also completely plain shields. Borders were white or coloured, often with studs which fastened the hide.

The short spear, or *dja*, had a copper blade attached by a tang. Other hand-to-hand weapons included the stave, axe or *ikhu*, club or *ames*, and dagger, or *ta-agsu*. Troops equipped with light javelins were accompanied by bearers carrying quivers of extra missiles, as shown in 4a.

5. MIDDLE KINGDOM EGYPTIAN RETAINER

Troops equipped in this manner are frequently shown accompanying nobles in tomb paintings. They probably represent *shemsu*, or 'retainers'. The shield is quite often the same height as the bearer. The small loop at the top was for hanging it up in the armoury. This type of shield could be flat or curved, otherwise decoration and construction is as described under 4, above. These troops often carry an eye-axe resting on the shoulder. This weapon existed in both one-handed and two-handed versions, most retainers using the latter.

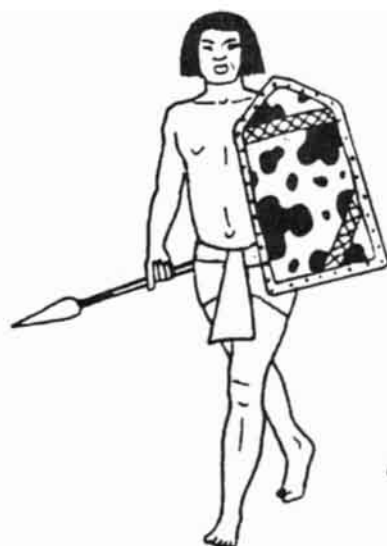
Textile bands and armour as shown in 8, or a breastplate as shown in 6, could be worn. Retainers may have been chosen from among the hereditary warriors and so might wear the ostrich plume. Some retainers would probably be archers.



3



a



4



b



c



d



e



5



6



f



g



h

6. MIDDLE KINGDOM EGYPTIAN COMMANDER

This figure is based on tomb paintings of provincial nobles and their closest retainers. The *huty-aa*, as the provincial noble or 'nomarch' was known, acted as the commander-in-chief of the forces of his province or 'nome' when conducting operations on his own account or on behalf of the king. He commanded his own nome-contingent as part of larger armies raised by the king from the nation as a whole. Other officials holding high military rank would be little different in appearance.

The breastplate is shown being worn by a retainer in a tomb at El Berseh. It is inserted beneath the textile band type of armour and was perhaps made of copper or bronze.

Tomb scenes often depict the nomarch conducting an inspection of his domains accompanied by a sunshade-bearer, (the sunshade being a flat rectangular board mounted on a pole with a fabric flap falling from the rear), various officials, scribes and armed retainers. Some scenes show retainers screening their lord with their large shields. No doubt the noble and his retinue would present a similar sight on the battlefield, with the addition of a standard bearer bearing the nome-standard. Nobles are also shown being carried in litters and in one instance, even in a litter mounted on the back of a donkey. Of course it would be quite common for military commanders to conduct operations from a boat on the Nile, and there are records of this taking place throughout dynastic times.

Characteristic items of dress included long, brilliant white or semi-transparent linen kilt and possibly cape, wig and staff-of-office. The term for military commander or overseer was *imy-er*, which may be the remote original of the term 'emir'.

7 & 8. MIDDLE KINGDOM EGYPTIAN INFANTRY

These soldiers are based on figures in tomb paintings from Beni-Hasan, Mier and El Berseh. The archer carries a quiver, (*ispet* or *kethet*) which was now in use, although many archers still carried their arrows loose. The waterskin is shown in a desert hunting scene and mentioned in texts as being part of a soldier's equipment. This would be essential in the arid regions into which expeditions were frequently sent. 3000 men led by a certain Henu to Punt each carried a leather bottle and a carrying-pole for water jars and loaves of bread. Similarly, Senekh, a 'commander of troops in the desert regions', equipped his men with waterskins and baskets of provisions. On many expeditions, attrition from thirst, fatigue and sickness might be a more serious threat than enemy action.

Like 7, figure 8 is a typical *ahauty* (warrior), wearing the red ostrich plume in his white headband which denoted a hereditary warrior. His armour of textile bands is decorated with a broad coloured stripe and acts as a halter for a section of textile protection for his abdomen. An animal tail could be attached to the back of the belt of either soldier. He wields a one-handed version of the eye-axe which has a hand guard. Clubs, such as that shown in 8a, were equally popular. The dagger has a peculiar ball-like grip.



9. MIDDLE KINGDOM PHARAOH

This is based on several representations of kings, but chiefly Senusret I (1971-1926 B.C.). He wears the 'double-crown', a combination of the ancient crowns of Upper and Lower Egypt. This may seem rather impractical for campaign (but useful for recognition) and may have been replaced by some other form of headgear in battle. A suitable candidate is the so-called 'cap-crown', a tight-fitting skull-cap adorned with a royal cobra, which appears in the Old Kingdom. A crown such as this, covered in many small metal discs, is known from many representations dating from the late Middle Kingdom through to the Early New Kingdom. It was probably the ancestor of the *khepresh*, or 'war crown' (also known as the 'blue crown'), a name which first appears in the 13th Dynasty. Thus it would seem to be an indigenous development rather than a Hyksos import, (9a).

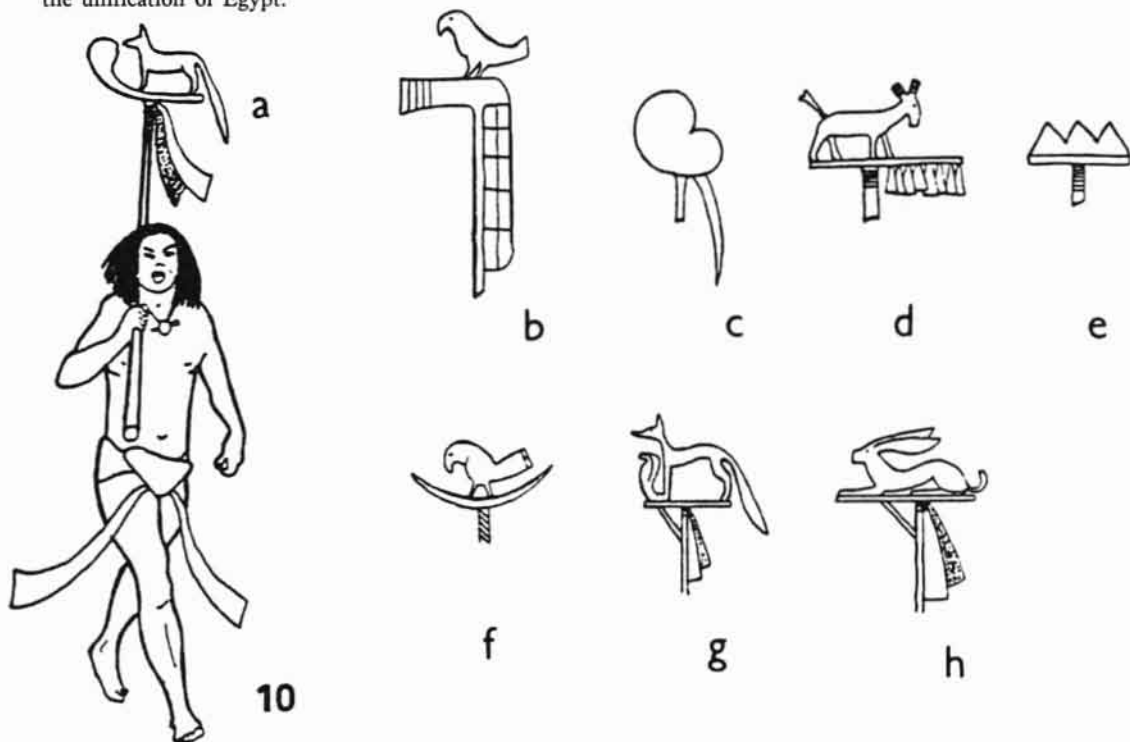
The broad collar, armbands, anklets, bracelets, belt, apron and ritual animal tail would be made of inlaid stone jewellery or beadwork. Corslets of such construction could also be worn (imitating hawk feathers), but this figure is shown with a more practical corslet of copper scales. He is armed with a small version of the mace-axe, which appears in the Middle Kingdom in the hands of the king. The king would be accompanied by numerous nobles, officials, standard-bearers and armed retainers on the battlefield.

10. EARLY EGYPTIAN STANDARDS

Nome standards were very often totemic animals or fetish objects representing the local god worshipped in the district since prehistoric times.

The standards were carved from wood and painted. They need not have been flat, as often assumed, and surviving examples (from later, funerary contexts) might suggest that they could be three-dimensional. Streamers were attached to the top of the shaft. These would most probably be red for Lower Egyptian nomes and white for Upper Egyptian nomes, these being the traditional colours, symbolic of the two ancient kingdoms. 10b and d show the form of these streamers around the time of the unification (c. 3000 B.C.). The standard pole was roughly twice the height of the bearer.

Standards of this type, and also the large ostrich-feather *behet*-fans which always accompanied the king, already existed in predynastic times. Standard-bearers were dressed appropriately to their status as an officer or retainer. This figure is wearing a type of kilt shown being worn by the sandal-bearer of King Narmer, and dates to the time of the unification of Egypt.



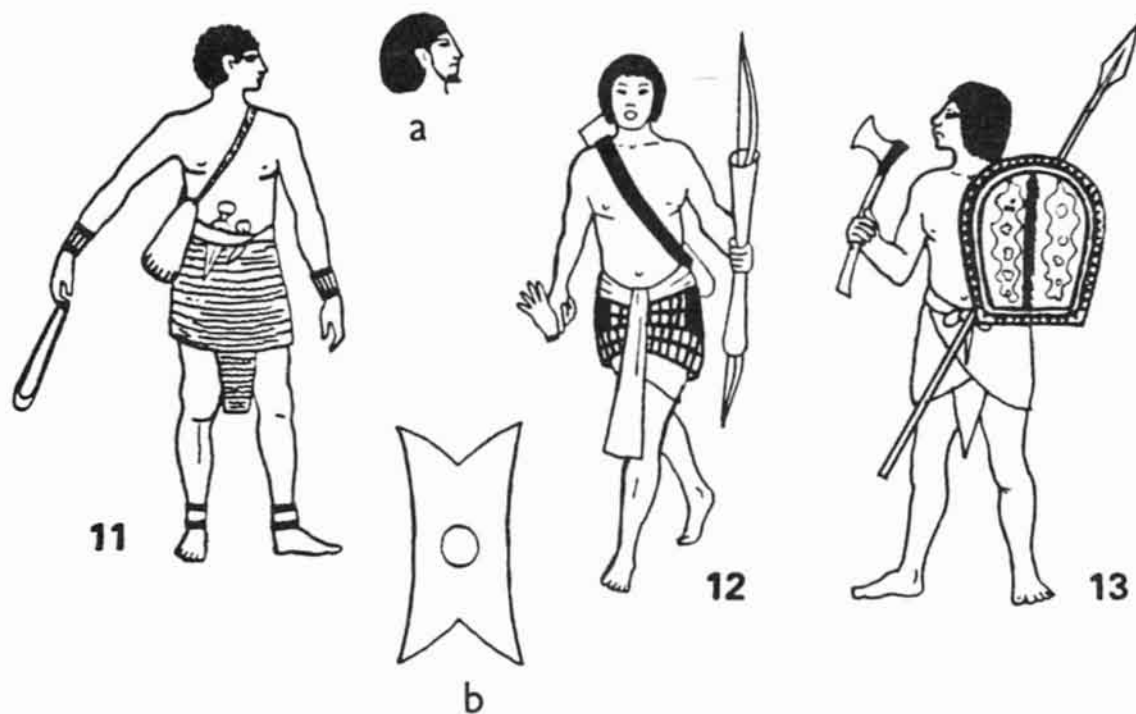
Standards 10a-c are taken from the 'Narmer-palette' and the large, carved, ritual macehead of King 'Scorpion'. 10a represents the jackal god, Anubis, symbol of the nome of Cynopolis. 10b represents the Horus falcon, symbolic of the king who was considered to be the physical embodiment of the hawk-god, Horus, and also the symbol of the nome of Hierakonpolis, home of the conquering Upper Egyptian kings of the 1st Dynasty. 10c is difficult to identify but is possibly also a nome-standard, perhaps representing Cusae. Two falcons, like that shown in 10b, represented Koptos. 10d is the Set-animal (an Okapi?), sign of the nome of Ombos. 10e is the hieroglyphic sign for 'desert regions'. These standards probably represent Upper Egyptian nomes under the control of the Predynastic kings, Scorpion and Narmer, during the wars of unification.

10g and h are Middle Kingdom standards which are simply refined versions of their archaic predecessors, 10g being a later version of 10a and 10h, being the symbol of the 'hare nome', Hermopolis.

11. MIDDLE KINGDOM AUXILIARY OR MERCENARY

Many light-skinned troops wearing 'woolly' or patterned kilts are depicted in Middle Kingdom tombs. They use a variety of weapons including bows, slings, throw-sticks, javelins, large clubs and small axes. The archers and slingers do not bear shields and only some of the other troops do so. Apart from an odd Egyptian shield here and there, these take the form illustrated in 11b. There can be between one and three bosses arranged vertically, or an animal hide pattern. The shield is perhaps a hide stretched over a frame and is not far removed from contemporary Amorite shields. Some of these troops have a rather 'Egyptian' appearance, others appear as 11a. They are probably the 'Asiatic' auxiliaries that are mentioned in some texts. They were recruited from nomadic bedouin tribes on the eastern borders of Egypt, to be employed as scouts and skirmishers like the Nubian Medjay. They were perhaps more common in Lower Egypt, whereas the Medjay were found mainly in Upper Egypt.

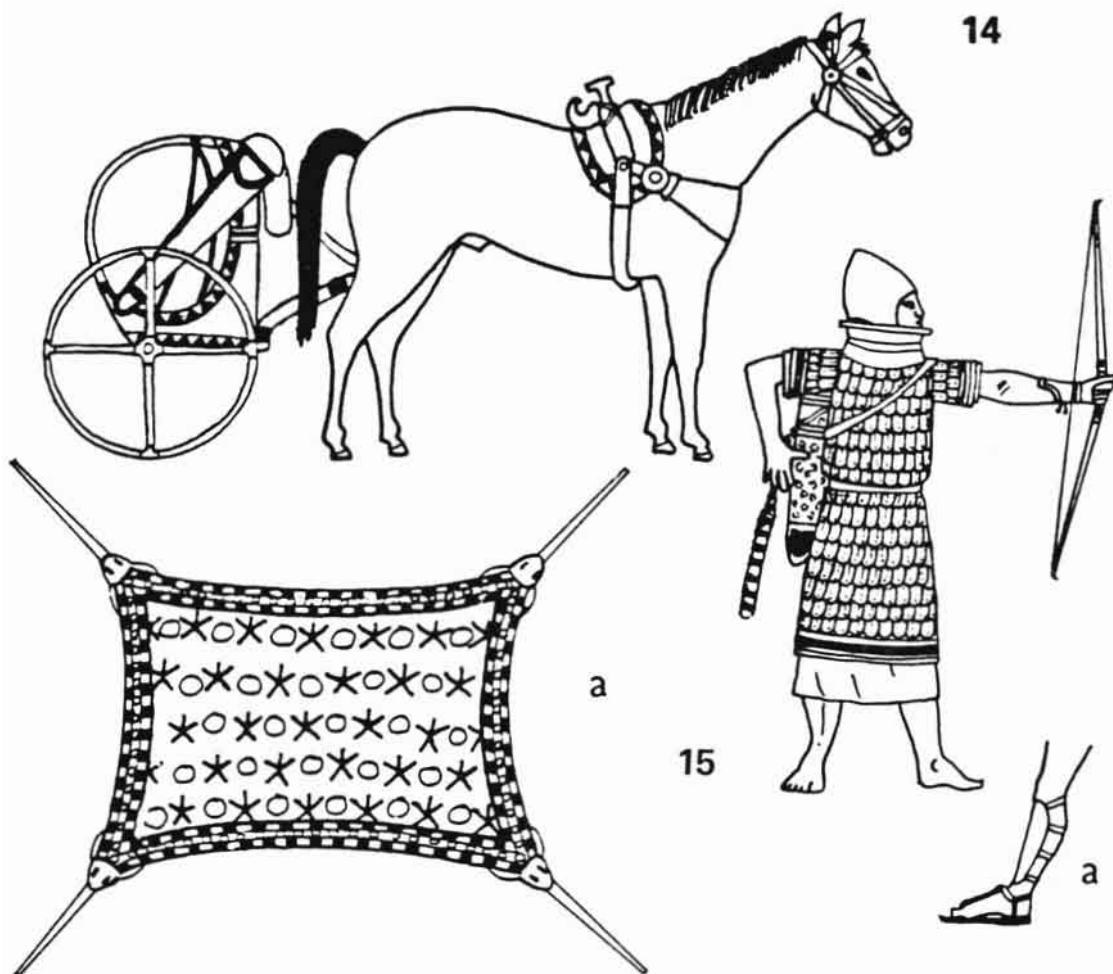
The slinger illustrated here carries his missiles in a bag slung over his shoulder. Native Egyptian troops do not seem to have taken much interest in the sling as a weapon of war at this time. Since most of their enemies wore little armour and there was abundant expertise in archery, the Egyptians probably took the view that it was better to slay as many enemies as possible at the furthest possible distance. These foreign troops were using their native weapon, developed in a different environment and style of fighting, and were employed as specialists by the Egyptians since there was no lack of manpower in Egypt. They may have been valued more on account of their expertise in scouting, skirmishing and ambushes, which were more likely to be the strong points of nomads than of Egyptians, rather than on account of weaponry alone. The sling is quite often found as a weapon among shepherds, who use it to protect their flocks from predators.



12 & 13. EARLY NEW KINGDOM EGYPTIAN INFANTRY

These soldiers are typical of troops represented on 18th Dynasty monuments before the Amarna Period (reign of Akhenaten c.1379-1362 B.C.). They are the troops who fought for the conquering Pharaohs, Ahmose I, Amunhotep I, Thutmose I and Thutmose III; the troops that created the Egyptian Empire. They do not appear to have benefited from much protection. The archer still uses the old stave-bow which was being replaced by the composite type introduced during the Hyksos Period. The tubular bow-case was also used during the Middle Kingdom. Over his white linen kilt he wears the so-called 'naval-kilt' which was a slit-leather garment worn by sailors and marines. He is shown returning from pursuit, having taken a trophy, and eagerly anticipating the 'gold of valour'.

The spearman carries a wooden shield covered in hide, (two sections stitched along the middle in this example), and with a painted border. Shields could be slightly convex and coloured plain white or yellow instead of natural hide patterns. A flap of stiffened fabric was sometimes worn as protection for the groin. The main weapon is a short spear or javelin between 1m. and 2m. long. Common side-arms included a small bronze axe, bronze daggers, bronze *khopesh* ('sickle sword'), staves, clubs and throw-sticks. Throughout the New Kingdom, side-arms do not appear to have been standardised within a unit.



14. EARLY NEW KINGDOM EGYPTIAN CHARIOT

This chariot is based on a painting in the tomb of Userhet. The cab is basically a light wooden frame over which is stretched a fabric cover. This is coloured blue in this example but presumably any plain colour was possible and even bronze scales (shown on a chariot of Thutmose IV). The floor was D-shaped in a plan and made up of interlaced leather thongs, covered with a hide or woollen carpet. These vehicles were extremely light, and are sometimes

shown being carried on the shoulders of foreign tribute bearers. An example in the Florence museum is very similar to that illustrated here. The cab was about 1m. wide, 50cm. deep and 75cm. high. The axle was 1.5m. wide and the yoke-pole was 2.5m. long. The simple four-spoked wheels were replaced by six-spoked wheels by the mid 18th Dynasty, and a chariot of Thutmose IV possessed eight-spoked wheels.

Various types of wood, chosen for their qualities of strength and springiness, were employed in the construction of chariots. To increase lightness, the cover was only stretched over the front of the cab leaving a large 'fenestration' at each side. The axle was set as far back as possible to balance the vehicle and to improve speed and manoeuvrability. The only provisions for weaponry are the bow-cases on each side of the cab. In this illustration the upper part of the case hangs down, as the bow has been removed. The strap passing under the belly of each horse was a device intended to allow backward movement of the chariot, required for 'dressing' the ranks and manoeuvring the vehicle in the stable. The borders of the cover and yoke-saddle are decorated in red and white. Wood and leather work are various shades of brown or buff. Bow cases are red. The chariot was called *merkhabet*, a Canaanite loan-word, or *wereret*.

Horses were small, one buried at Thebes measuring 12½ hands, and black, grey, bay and chestnut horses were known. They could be protected in battle by textile or scale trappers, one being depicted in the tomb of Kenamun (14a). The mane was usually cropped or hogged.

15. EARLY NEW KINGDOM EGYPTIAN CHARIOTEER

Figure 15 shows the full charioteer's panoply as depicted in the Theban tomb of the noble Kenamun in a series of wall-paintings showing the New Years gifts presented to the Pharaoh.

The corslet, comprising some 450 scales, is coloured yellow to represent bronze, and it is very closely related to contemporary Canaanite and Mitannian examples. It incorporates a type of bronze neck-guard or collar used in those regions and also known in the Aegean.

He wears a bronze helmet, also derived from foreign models, some of which are shown being brought into Egypt by tribute-bearers. In Kenamun's tomb the helmets are painted white to represent silvered bronze. It could have a feather, or a horsehair crest. Helmets identical to figures 90c and 91 are also known in Egypt at this time.

Beneath the scale corslet the warrior wears a thick woollen coat decorated with red and blue bands at the hem, and below this he wears a linen kilt and tunic. His wrist-guard or bracer is of red and yellow leather with a green pad, red ties and blue tie-ends or tags. The bow is of Syrian manufacture, painted white with blue and red bark inlay. The highly decorated quiver is covered with leopard skin, and retains the animal's tail for use as a tassel.

This panoply was probably manufactured in Canaan and brought into Egypt as tribute or booty. A great part of the wedding gifts sent with Tushratta of Mitanni's daughter to Pharaoh Amenophis III consisted of chariot equipment and horses, including bronze and leather cuirasses for men and horses, shields and helmets. However, as with chariots, it was not long before the Egyptians were producing their own armour and developing their own designs. Figure 15a shows what seems to be a greave, depicted in the tomb of Khaemhet who is shown wearing them in a civilian context.

16. MID NEW KINGDOM EGYPTIAN INFANTRYMAN

This soldier is based on troops depicted on a painted box from the tomb of Tutankhamun, and so dates to the end of the 18th Dynasty. The longer, pleated kilts, often with a wide pleated apron, worn by troops from the reign of Akhenaten (1379-1362 B.C.) reflect contemporary fashion. In addition to this he wears a 'naval-kilt', which also appears in reliefs from Horemhab's tomb at Memphis, and may have become a normal part of a soldier's uniform by this date. Usually nothing was worn beneath the 'naval-kilt', which was cut out of a single piece of leather, leaving a solid panel at the back where the wearer's seat met the wooden rowing-bench, so that water would quickly drain away.

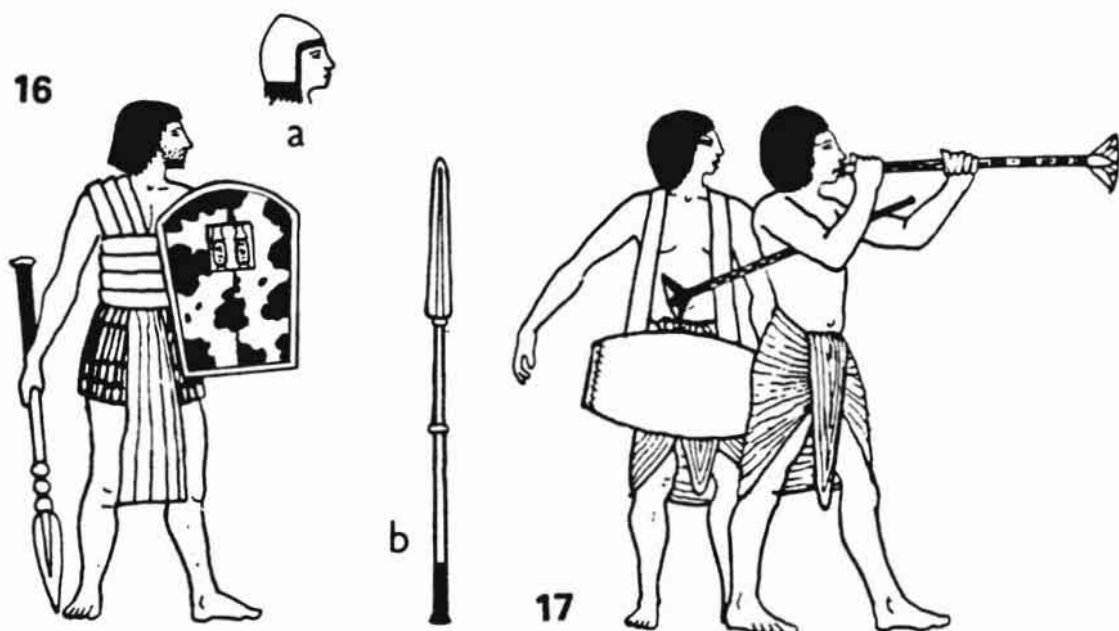
Armour begins to appear on New Kingdom infantry at this time. This man seems to be wearing white textile bands around his midriff and across his shoulder on the unshielded side. Another interpretation might be a sort of segmented armour of very stiff fabric.

Other figures from the same source wear a short white tunic which leaves the abdomen exposed. It is probably a stiff textile jerkin rather than just a flimsy linen shirt.

A helmet worn by troops in Horemhab's reliefs is shown in 16a. It also often appears in military scenes of the Ramesside period, and it could have been made of leather, padded textile or, most probably, bronze.

The shield is the usual 18th Dynasty type. A central panel or band bears the king's name, and possibly the unit name. Shields found in Tutankhamun's tomb were made of light wood covered with antelope or cheetah hide, though the coverings of common soldiers' shields would not be so exotic. Shields were slightly convex and measured about 75cm. high and 50cm. wide.

The weapon depicted in 16b is shown being thrust with great ferocity, using both hands, into fallen enemy charioteers in the painted-box scenes. It could be described as a long-handled sword, or a heavy type of short stabbing-spear. Bronze heads for such weapons survive in both the Cairo Museum and the Ashmolean Museum, Oxford. The latter example, 16b, bears the name 'Kamose', showing that they were used throughout the 18th Dynasty. The head alone measures 60cm. long, and the paintings show its full length to have been about a metre.



17. NEW KINGDOM EGYPTIAN MUSICIANS

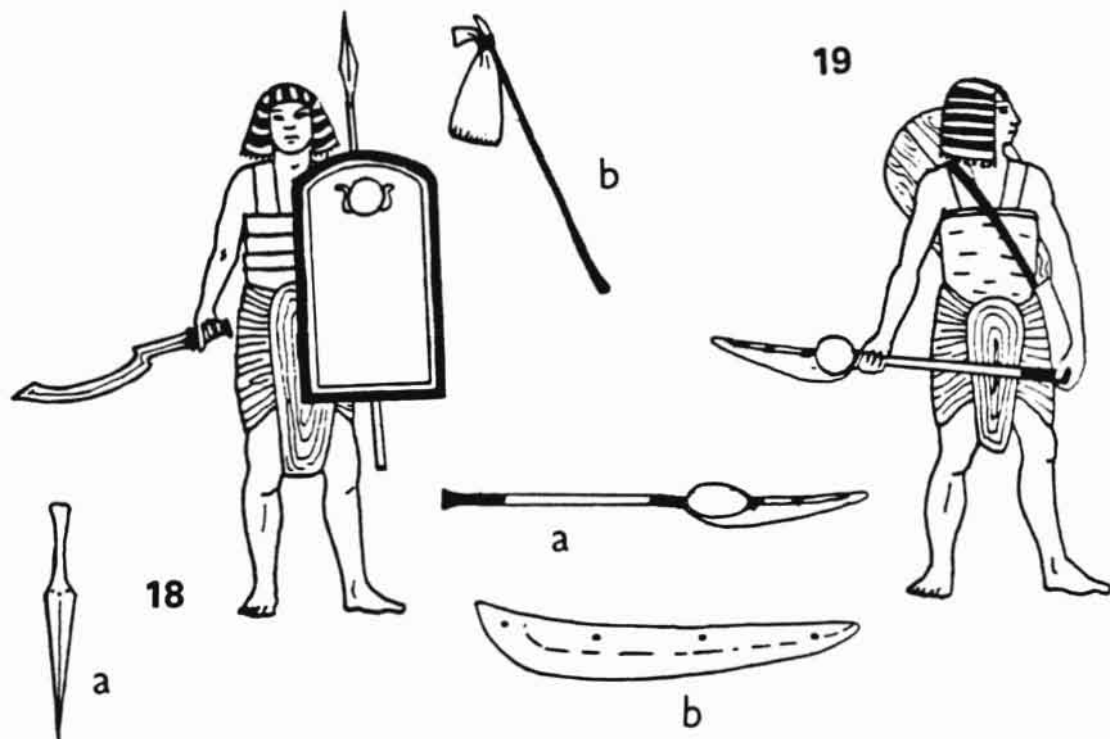
Two war trumpets bearing the names of Amun, Re and Ptah, possibly a reference to armies, were found in the tomb of Tutankhamun. When played with a modern mouthpiece they produced a particularly evocative sound, though without this could produce only a few raucous notes. They were provided with wooden formers to prevent damage when not in use. They were probably used to give general signals to large formations of the whole army, such as 'advance', 'retreat', 'left or right wing advance', and the like. The drum was used on military parades, and would have provided a fitting, relentless beat for advancing bodies of close-order infantry. It could also be used for signals within small formations.

Egyptian troops at all periods probably chanted or sang as they went into battle and on parades. Texts mention war-cries and clamour before battle began. The 6th Dynasty commander, Weni, even recorded a triumph song in his tomb inscription.

18 & 19. LATER NEW KINGDOM CLOSE-COMBAT INFANTRY

These figures are based on numerous battle reliefs of the 19th and 20th Dynasties, often called the 'Ramesside period'.

Both figures wear pleated white linen kilts with a frontal flap that may have been stiffened. The 'striped headcloth' appears at this time. This was not quite the same as the Pharaoh's *nemes* headdress and may not be simply cloth. One explanation might be leather strips fastened to a cloth base. Figure 18 wears banded textile armour similar to that of 16. The textile protection of 19 is an unsegmented version of this design. Contrary to popular imagination, tunics were not commonly worn beneath this type of armour, which would probably be white, brown or buff.



The shield carried by 18 is typical of that used by spearmen in the Ramesside period. Its large and rectangular shape is better suited for fighting in dense formations than the earlier New Kingdom type, which continued in use by axemen, marines, runners and light troops. Shields were now painted plain colours such as red or blue. They had a white border decorated with thin black, blue and red lines. The 'boss', positioned over the hand grip, is actually a flat metal disc flanked by two sacred cobras, showing it to be a solar disc. It was probably a form of unit insignia replacing that of 16.

It was very common practice for the shield to be slung on the back by a strap when marching and even in combat. The troops would also use their shields to make a palisade around the camp when on campaign.

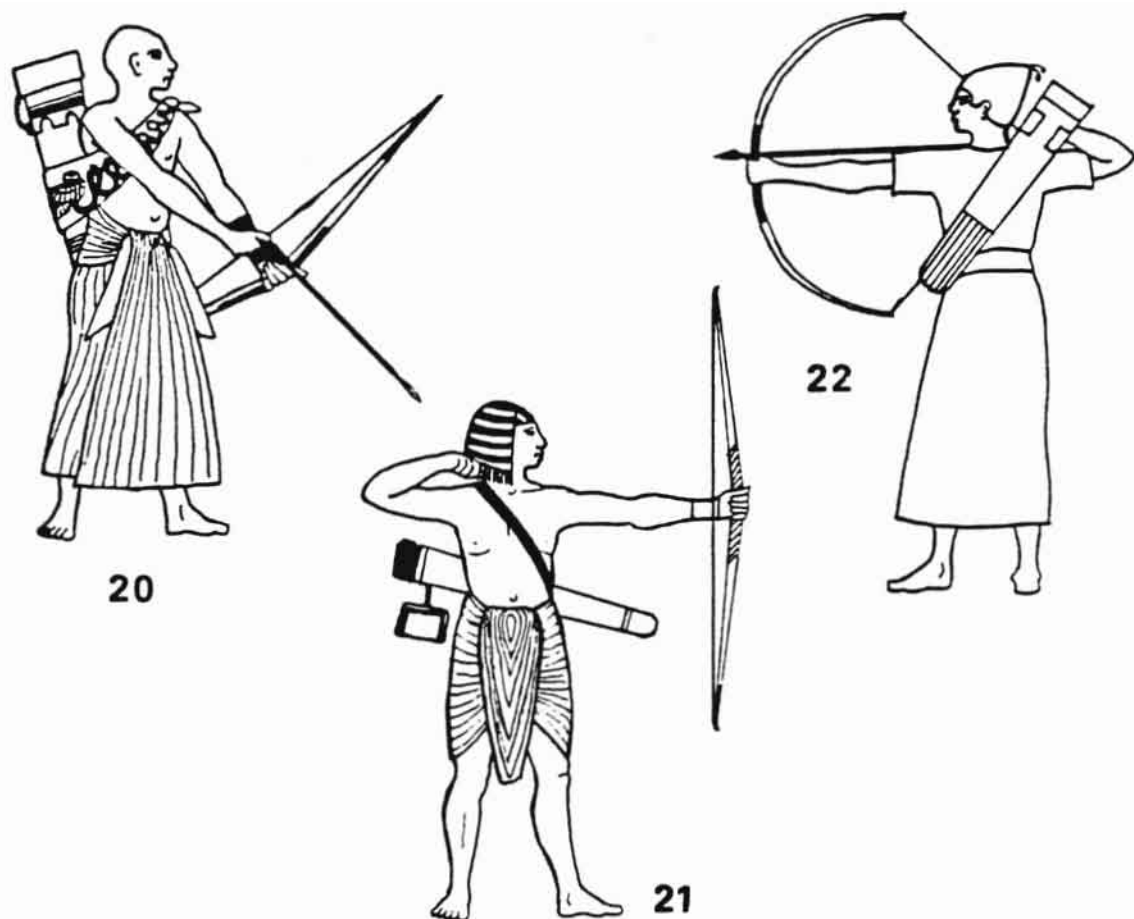
The mace-axe carried by 19 existed in both one and two handed versions. Examples of both sized blades have been found. A large blade in the British Museum is shown in 19b, and a reconstruction of the weapon in 19a. The shaft was presumably inserted through a wooden mace-head which had a groove for the fitting of the blade. It is well-designed to combine cutting and concussive effects.

Side-arms included the mace, baton, small axe, throw-stick, dagger, short sword, as shown in 18a, and the *khopesh* as shown in the hand of our spearman. A *khopesh* from the tomb of Tutankhamun was 60cm. in length, a hefty weapon of bronze, cast in one piece with the handle. The lower edge was the cutting edge.

The soldier's 'field-pack' is depicted in Egyptian camp scenes and illustrated here in 18b.

20, 21 & 22. LATER NEW KINGDOM EGYPTIAN ARCHERS

By this time, the composite bow was standard equipment for all archers. Unstrung, the bow had a double-convex appearance, but when strung, produced the characteristic triangular shape. According to accounts of royal feats of archery, the bow was drawn to the ear and could send a shaft through an ingot of copper three 'fingers' thick at close range. Bows were up to 1.30m. long and constructed by fixing thin strips of horn to a central wooden core and building in other types of wood and sinew. Tutankhamun's tomb contained numerous bows of different types. One type was a single stave self-bow, about 70cm. long. Another self-bow was made from two staves joined at the centre and was about 75cm. long. Composite bows from the tomb varied from 1.10m. to 1.23m. long and were very stiff at the centre. They were strung to create the triangular shape referred to above. Strings were made of



four strands of twisted gut. Arrows usually had a reed shaft, but were footed with hardwood. They were tipped with bronze, the heads resembling miniature spearheads. The nock was also made of hardwood or of ivory. Arrows could be either three- or four-fletched with feathers, and up to 1m. in length.

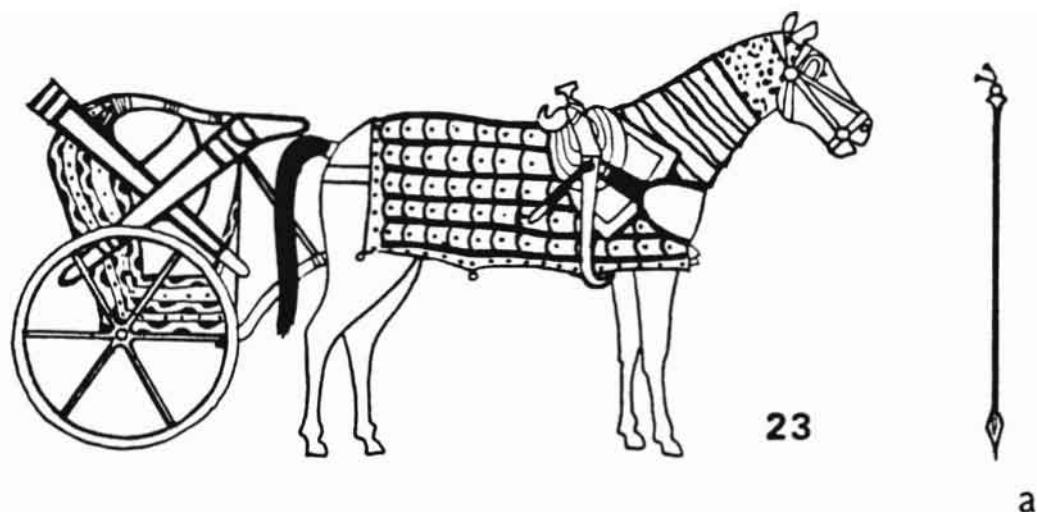
Figure 20 is a type of archer often depicted in battle scenes of the Ramesside period. Their shaven heads are a distinctive feature, and they may belong to a particular elite unit. Colours have survived on some reliefs, showing that the robes were white while the quiver and quiver-sling were brightly painted with mythological beasts (such as the winged cobra shown here) or in imitation of exotic animal skins. The quiver was made of embossed leather and provided with a lid attached by a thong. Several examples are preserved in the Cairo Museum.

Figure 21 is an unarmoured Ramesside archer, but the same uniform could be worn with a 'striped' jerkin (possibly representing scale armour). Figure 22 wears a textile helmet, and his tunic may have been some form of armour on which the detail has been eroded away.

The Egyptians of the New Kingdom do not seem to have made much use of the sling in warfare, and the only representations of slingers are in the naval battle reliefs of Ramesses III at Medinet Habu. Here the slingers are in the crows' nests of the Egyptian warships and there may be some special reason for their employment in this position rather than archers. Slings were found in Tutankhamun's tomb but they may have been simply part of his hunting equipment.

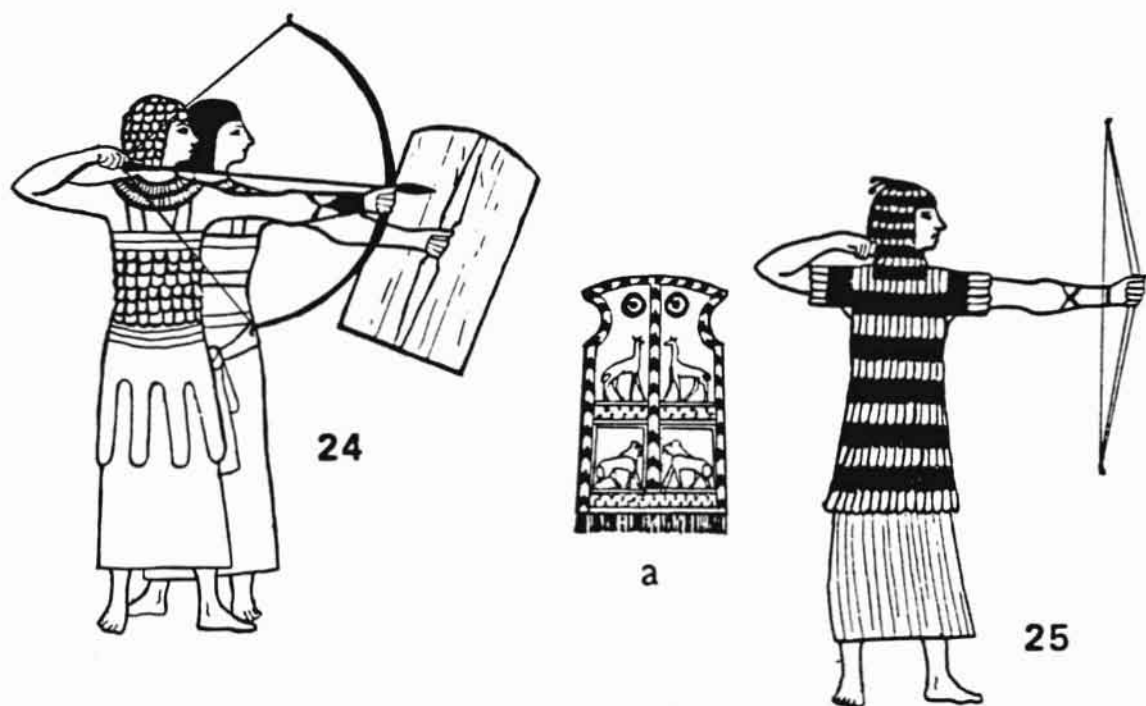
23. LATER NEW KINGDOM EGYPTIAN CHARIOT

This is based on representations from the reigns of Tutankhamun and Ramesses II. Six-spoked wheels were now standard and the cab is generally heavier and more robust. It appears to be constructed from wood and bull-hide. Two further weapon-cases were added by the time of Seti I, each containing a pair of javelins as well as arrows. Figure 23a illustrates a javelin, which was about 1m. long.



The cab of one of Tutankhamun's chariots measured 1m. in width and 1.25m. in height. The axle was 1.75m. wide and the wheels were 90cm. in diameter. The draught-pole was 2.5m. long.

The horse-armour is derived from reliefs at Abu-Simbel in which Egyptian chariots are charging towards Hittite opponents. The textile trapper is covered by rows of bronze or leather scales alternating with lines of coloured lacing. This arrangement, or the painting of scales alternately different colours, created a striped appearance. The neck of the horse is protected by webbing or leather bands and the head by a bull-hide (alternatively, a scale) *gurpisu*. The breast harness seems to have acquired a subsidiary function as a breast-plate. This equipment represents the most heavily-armoured chariotry available to the Egyptians and pictorial evidence indicates that there were many units of lighter chariotry used mainly for scouting and skirmishing. The heavy types would be required to engage enemy chariotry.



24 & 25. LATER NEW KINGDOM EGYPTIAN CHARIOT CREW

The crew illustrated in 24 wear textile armour with the addition of scale corslet, and scale helmet in the case of the chariot warrior. The driver was usually equipped with a shield during the Ramesside Period (19th and 20th Dynasties), those from the source used here being covered in bull-hide. The traditional type was replaced by a round shield among some chariotry in the reign of Ramesses III. Egyptian chariotry mainly fought with long and short range missile weapons and were probably not inclined to dismount in action unless absolutely necessary.

Figure 25 is equipped with a scale corslet of a type depicted in the tomb of Ramesses III. Several pairs of these corslets are shown, together with items of chariot equipment which might indicate that they could be issued to both members of the crew. Scales of varying sizes were used, and the neck was protected much more efficiently than by the earlier corslet of 15. The rows of scales alternate in different colours, and paint or variant alloys of bronze could have been used to achieve this effect. Another possibility could be tinted leather scales as a sleeveless cuirass of such scales was found crumpled in a box in Tutankhamun's tomb. The scales were fixed to a linen base or lining to form a close-fitting garment. Such an arrangement of scales (and corslets in which the lacing was left exposed) have no doubt contributed to their interpretation as striped tunics. This figure is also equipped with a helmet of similar construction. Some of the striped headgear often attributed to Egyptian troops might be better interpreted as helmets of this type (cf. figs. 87, 88 and 90e).

25a is a heavily-embroidered (or painted) cuirass depicted in the tomb of Ramesses III. It has a fringed lower edge and was probably textile. In constructing their non-metallic armour, the Egyptians no doubt used similar techniques to those employed to make cartonnage cases for mummies. This involved building up layers of linen treated with resins, the results would be very tough, but light.



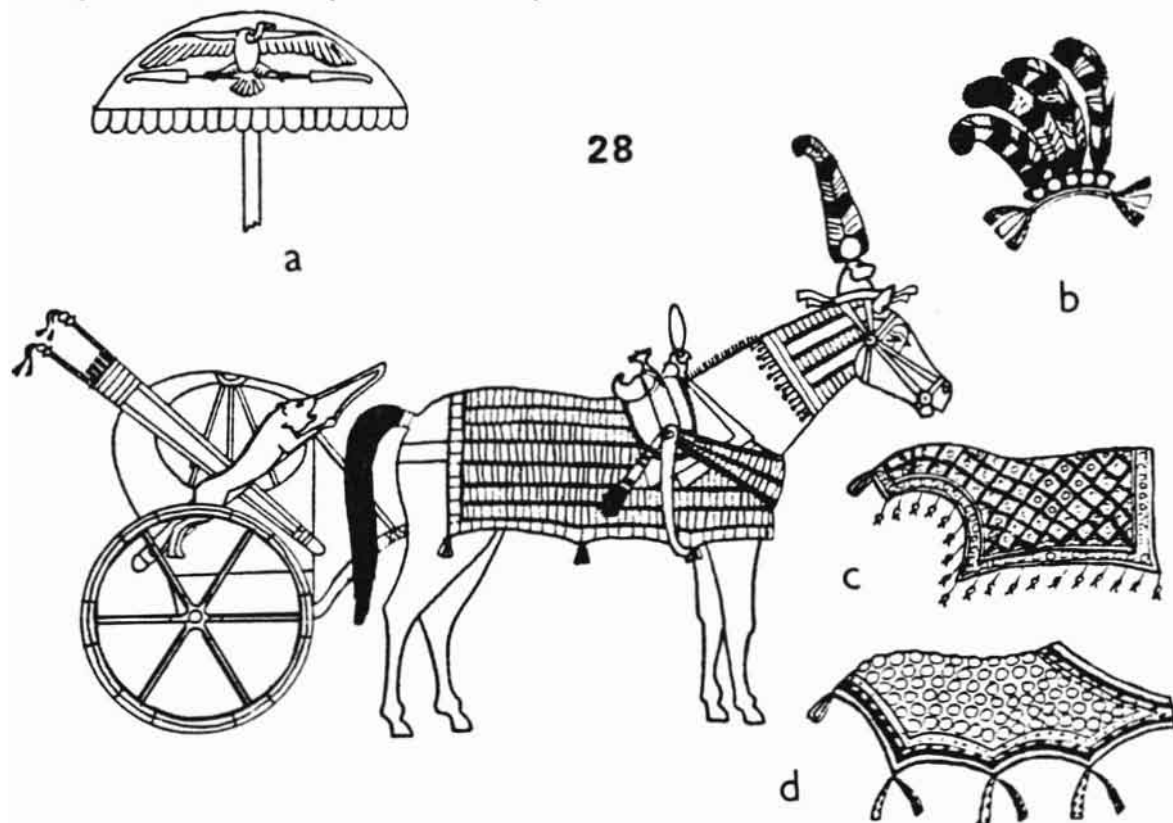
26. NEW KINGDOM EGYPTIAN CHARIOT RUNNER

Runners were infantry intended to act in support of the chariotry and were an integral part of chariot unit organisation. The hieroglyphic 'determinative' actually shows a man running with shield and javelin. Presumably especially athletic men were selected for service as runners. There are several reliefs which depict runners in action. They are shown running beside the chariot, advancing ahead of the chariotry, or 'mopping-up' after a chariot charge against enemy chariotry. A few figures in these contexts are shown with bows instead of javelins, and could be crewmen from destroyed vehicles who would join the runners in the midst of combat. At Medinet Habu, a line of javelin-armed troops are shown operating on the flanks of a line of chariotry.

27. NEW KINGDOM EGYPTIAN HORSEMAN

This rider is taken from 19th Dynasty reliefs at Luxor. He wears yet another type of textile armour which fastens on the left side. He is armed only with a bow. This soldier represents the beginnings of cavalry in Egyptian armies, although numbers would be small, and combat roles limited to scouting and carrying messages. Skirmishes between opposing mounted scouts were probably not unknown.

A rider is shown in military reliefs from the tomb of Horemhab at Memphis, (which he built while still only a general). He rides bareback, wears little clothing and carries only a whip, so he may just be a groom exercising the horses. His hairstyle and appearance are rather 'Nubian', and it would not be unusual to find a few foreigners in the ranks of regular units and among the servants attached to officers and chariotry. The design of the saddle in 27 is cut from a hide, other saddles were of plaited reed. Horses were probably still too small and weak in the spine to enable the development of true cavalry.



28. NEW KINGDOM PHARAOH'S CHARIOT

The Pharaoh's chariot was always the most advanced design available and richly decorated. This illustration is derived mainly from Ramesses II's 'lion chariot' and a similar 'lion chariot' of Ramesses III.

Thutmose IV is shown driving a chariot with eight-spoked wheels in one representation, while his well-equipped *maryannu* opponents only have four-spokes.

The cab could be plain and constructed like ordinary chariots but was usually highly decorated. Chariots of wood overlaid with gold were perhaps normally reserved for parade, although Thutmose III fought in a chariot overlaid with electrum at Megiddo. The above mentioned chariot of Thutmose IV had a metal or leather scale covering stretched over the frame. The war chariot of Tutankhamun depicted on a painted box from his tomb was similar to 23, but the state chariots from his tomb were made of wood overlaid with gold and decorated with inlay.

The trapper, breast-harness and *gursu* of 28 are constructed from inlaid stone or faience beads arranged in lines of different colours as if they were tiny scales. They were presumably attached to a textile backing. Colours included blue, light green, red and yellow. Instead of an apotropaic *menat*, a fly-whisk is fastened to the yoke-saddle.

The horse-armour shown on the painted box of Tutankhamun is illustrated by 28d. The round discs are coloured yellow and are probably a convention for scales. The trapper was tied under the belly by tapes. The curved lower edge of such trappers may be an attempt by artists to represent the stretching of the covering. The beadwork trapper of Thutmose IV is shown in 28c. There were many variants of the crest on the horses' heads which incorporated dyed ostrich plumes, one version is shown in 28b.

Figure 28a is from a Victorian drawing of an Egyptian relief and represents the sunshade of Ramesses II, mounted above his chariot. It is possibly just a garbled fan but the shape argues against this. It is decorated with a protective vulture deity.

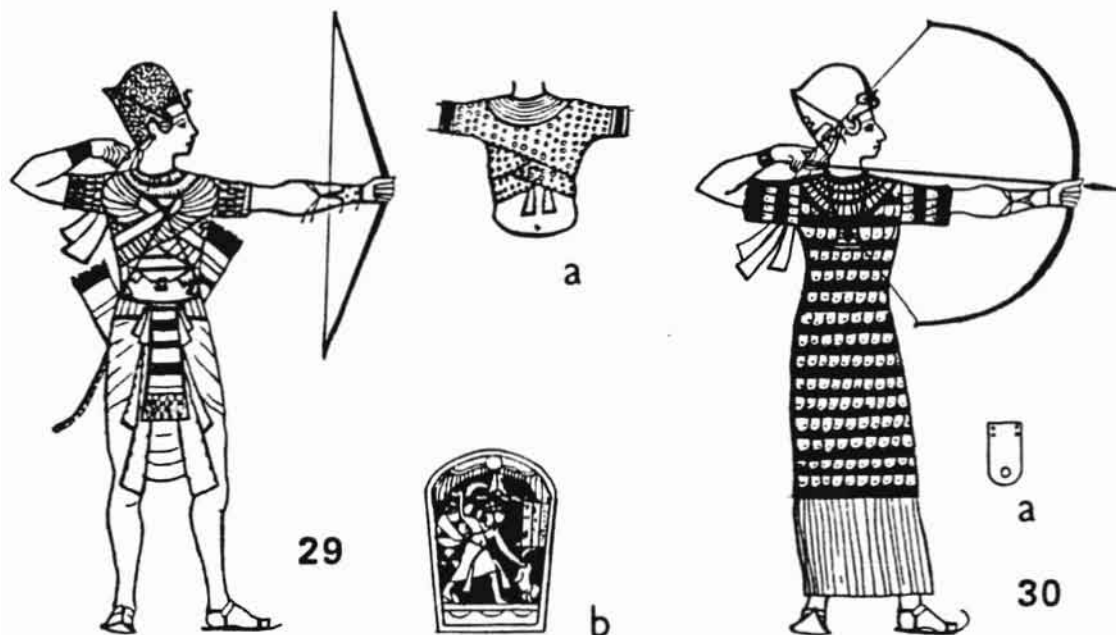
A special feature of the Pharaoh's chariot was the solar disc surmounting a wooden hawk, overlaid with gold, mounted on the draught-pole.

This chariot is appropriate to figure 30. Representations always show the Pharaoh riding alone with the reins tied around his waist. This was probably Pharaonic propaganda, as the epic poem on the battle of Kadesh contains a dialogue between Ramesses and his charioteer Menna, although modern experiments have shown that it is possible to drive in this fashion at low speeds.

Royal spans were given names such as '*Smiter of Foreigners*' belonging to Seti I, '*Victory in Thebes*' ridden by Ramesses II and '*Amun Giveth the Sword*' owned by Ramesses III.

29 & 30. NEW KINGDOM EGYPTIAN PHARAHS

Figure 29 is based on representations of Thutmose IV, Tutankhamun and Seti I. He wears the *khepresh*, often known as the 'blue-crown' or 'war-crown'. The first mention of this helmet occurs in the reign of Neferhotep III of the 13th Dynasty and it was already developing out of the 'cap-crown' before the Hyksos period. The crown was made of leather, coloured blue and covered with many small gold or bronze discs. The sacred cobra, or 'uraeus', surmounts the brow. A low ridge crosses the helmet just behind the dome, and yellow ribbons fall from the nape.



Around his waist are tied several yellow sashes. The belt, apron, broad-collar and corslet are made of inlaid stone work. The apron ends in a row of cobra terminals. From the back of the belt hangs a bead replica of the ancient animal tail. The corslet takes the form of two falcons. Their bodies form the protection for his flanks and their wings cross over his back and chest. To these are attached inlaid stone sleeves. A band forming part of the fastening arrangement can be seen between the talons of the falcons. The inner feathers of the wings would be red, the outer ones and bodies being blue or light green. The solar discs on their heads, talons and cloisonne holding the inlay would be gold. In battle, less ornate versions of various bronze alloys or tinted leather may have been worn. Another type of corslet which is rather more functional is shown in 29a. It comprises a short leather or textile jerkin covered with bronze or gold discs. It extends into two long and tapering bands which wrap around the body and tie at the front. The abdomen is left exposed but this could also be worn over a white textile undergarment. This jerkin would be coloured yellow, brown or red. The two dark bands are probably armlets.

His left forearm is protected by a leather wristguard, but embroidered gloves could be worn like those of Tutankhamun which can be seen in the Cairo Museum.

A royal shield is shown in 29b. The front could be covered in exotic hide, or, as here, consist of a gilded or ebony openwork raised motif against a white or dark ground.

Figure 30 is based on a representation of Ramesses II. The variant of the *khepresh* shown here is plain with a gold or embroidered falcon on the back. A jewellery pectoral hangs from his neck. He wears a long scale corslet over white linen robes. This is an Egyptian equivalent of the type shown in 104. Rows of bronze scales (coloured yellow) alternate with lines of stitching (represented by plain blue lines), each row of scales slightly overlaps the row of stitching directly beneath. The scales have a small boss in their lower half, and so correspond exactly to scales in the Cairo Museum, some of which belonged to a scale corslet of Sheshonq I. One of these scales is shown in 30a. This armour was worn only by the Pharaoh and his retinue. His sandals differ from earlier types, having acquired upturned toes. When not in combat the Pharaoh wore robes like 31.

31. NEW KINGDOM EGYPTIAN OFFICER

He wears the typical dress of an official in fashion from the mid-18th Dynasty onwards, consisting of a heavily-pleated kilt worn over a long robe or wide sleeved shirt. These were always of brilliant white, occasionally semi-transparent, linen. Hair was usually shoulder length but shaven heads and wigs were also possible. Royal princes might accompany their father on campaign as subordinate commanders, and were distinguished by their sidelocks (31a). In action, long robes may have concealed armour, and reliefs show armour, like that illustrated in 25, 30, 32 and 33, being worn over their robes by high ranking officers.

Scribes, who invariably accompanied the army, would be similarly dressed and would carry writing equipment and leather cases for documents (leather sheets rather than papyrus scrolls when on campaign). Scribes could be taught foreign languages (chiefly Akkadian, the 'lingua-Franca' of the day) for service with the court or the army. The Pharaoh and high ranking officers would be literate.

Lesser officers, such as the standard-bearer, dressed as the rank and file. The 'greatest of 50' and 'greatest of 10' (equivalent to NCO's), carried wooden staves. This officer carries an ostrich plume, possibly the insignia of chariotry officers.

32. SHARDANA GUARDSMAN

The Tanis stela of Ramesses II and a reference in the epic poem on the battle of Kadesh, tell of Ramesses's capture of Sherden raiders and their formation into an elite body in time for the Kadesh campaign. The Kadesh reliefs show Sherden (or *Shardana*), and native Egyptian royal guards both equipped with this type of armour. The most detailed representations are at Abu Simbel. The Sherden contingent retained their distinctive shields, swords and helmets. The Egyptian guards were helmetless, with shoulder-length hair, and carried the shield shown in 32a. This seems to bear a wheel motif instead of a solar disc. They carried spears and small axes as side-arms. The Sherden carried only a sword which was about 1m long. 32b is an example of this weapon in the British Museum. Other reliefs show Sherden with javelins, though these may not be guards. The dark-coloured buckler was probably leather. The bronze bosses were arranged with an inner and outer ring or an outer ring around a central boss. The cap-like helmet could have been made from boars'-tusks in Aegean fashion or with segments of leather or wood. It was surmounted by two cow horns (or boars' tusks) and a disc insignia. This was probably to distinguish Egyptian auxiliary Sherden from enemies, as it appears on Sherden other than guards.

The type of armour shown here appears only during the reign of Ramesses II. It is only shown being worn by royal guards, some chariotry (also likely to be household troops) and some archers (which could possibly be dismounted charioteers). It is apparently very rigid, and takes the form of a coat with two broad straps passing over the shoulders and a frontal flap over the chest. The tapering apron of the kilt is allowed to hang outside. Some idea of its rigidity is given by the shaping of the thigh sections to ease movement. This uniform is often reconstructed the other way around because the reliefs show mirror images of these troops facing each other in order to create a symmetrical composition. It most probably fastened on the shielded side. The flaps, often taken to indicate a belt, may be intended as groin protection, but it is probable that they are meant to represent the other thigh panel protruding beyond the apron of the kilt. No actual 'belt' around the waist occurs in the reliefs.

The garment is divided into many horizontal panels with numerous small studs positioned along them, and is perhaps best interpreted as a sort of coat-of-plates. The studs may have fastened lengths of horn, wood or metal to the back of stiffened textile or leather. This might explain its restriction to elite troops and the curious 'cut' of the garment.



31



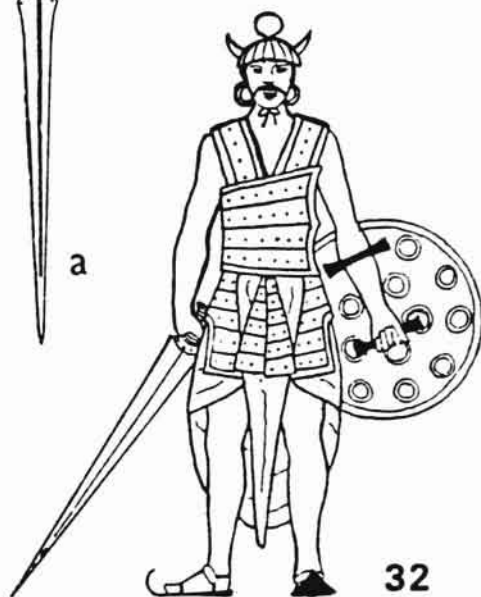
a



b



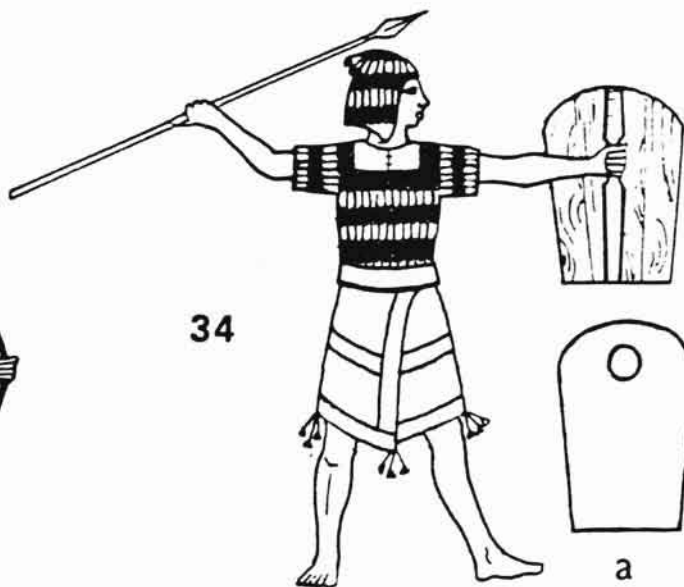
a



32



33



34

a



b



c

33. RAMESSIDE ROYAL RETAINER

This soldier appears running beside Ramesses II in his chariot in a scene from Abu Simbel. He must be his personal chariot-runner and sandal-bearer. He wears a different version of the armour described under 32. In this case it is likely to be entirely textile. The method of fastening on the left side, consisting of tapes passing through ring-shaped buckles, can be clearly seen.

34. RAMESSIDE MARINE

This marine is based on reliefs dating to the reign of Ramesses III, chiefly the naval battle depicted at Medinet Habu. Weapons used at sea included javelin, mace, composite bow, sling, boarding-pike and grappling-hook. Javelin or bow were used for land operations. The old style naval kilt has been replaced by one of 'Sea-Peoples', (originally Levantine), type. This was probably linen, strengthened with leather strips. One possible interpretation of the 'striped' corslets and helmets shown worn by marines, could be bands of plaited fibre or papyrus, but scale armour is probably more likely. The jerkins depicted in the Medinet Habu reliefs bear a striking similarity to the scale corslets depicted in the tomb of Ramesses III, illustrated and discussed under 25.

34a shows the front of the shield, 34b is the mace side-arm favoured by marines, and 34c is a variant helmet consisting of a textile or metal helmet with a fabric 'aventail'. It was worn together with a plain textile jerkin and normal infantry kilt. This uniform appears on troops in a parade scene from the reign of Ramesses III, who appear to be another type of marine.

35. NEW KINGDOM EGYPTIAN STANDARDS

The New Kingdom saw the establishment of a regular national army with a centralised command, consequently completely new types of purely military standards came into being. The majority of New Kingdom military standards were fan-shaped or rectangular. There were several basic forms to which insignia indicating any special status could be added. Fan and rectangular types were probably flat, while animal devices could have been three-dimensional. The device was mounted on a pole about 2m. long, to which were fastened a red and a white streamer representing the national colours of ancient Egypt, derived from the red and white crowns. The flat types would be ideally suited for indicating basic manoeuvres such as a wheel, and their common occurrence might suggest that they were used by the smaller units. More complex types were probably the insignia of companies or greater formations, their main function being recognition.

35a is a *behet*-fan. It was made of ostrich feathers dyed in coloured bands. Two such fans were always borne behind the king from the earliest times. In battle they were carried by runners behind the royal chariot.

35b is a typical military fan standard. The design is derived from the lotus flower and the board sits upon a carved lotus terminal on the pole. Colours would be red, blue, green or yellow on a white or yellow ground.

35c is another common type. A white rectangle surmounts a bow-shaped terminal, (the term *pedjet* derives from a word for the bow). The rectangle could contain the Pharaoh's names and titles and probably the unit name. The feather might indicate some special status or award, but a red ostrich plume was always a general insignia of soldiery in Egypt. 35d is depicted in a tomb at Tell-El-Amarna, the capital of Akhenaten. It bears cartouches containing the name of the *aten*. To one side is the phonetic hieroglyphic sign for *sa*, meaning 'company'.

35e is a lotus-flower standard carried by a unit that may have been household chariotry, during the reign of Ramesses III.

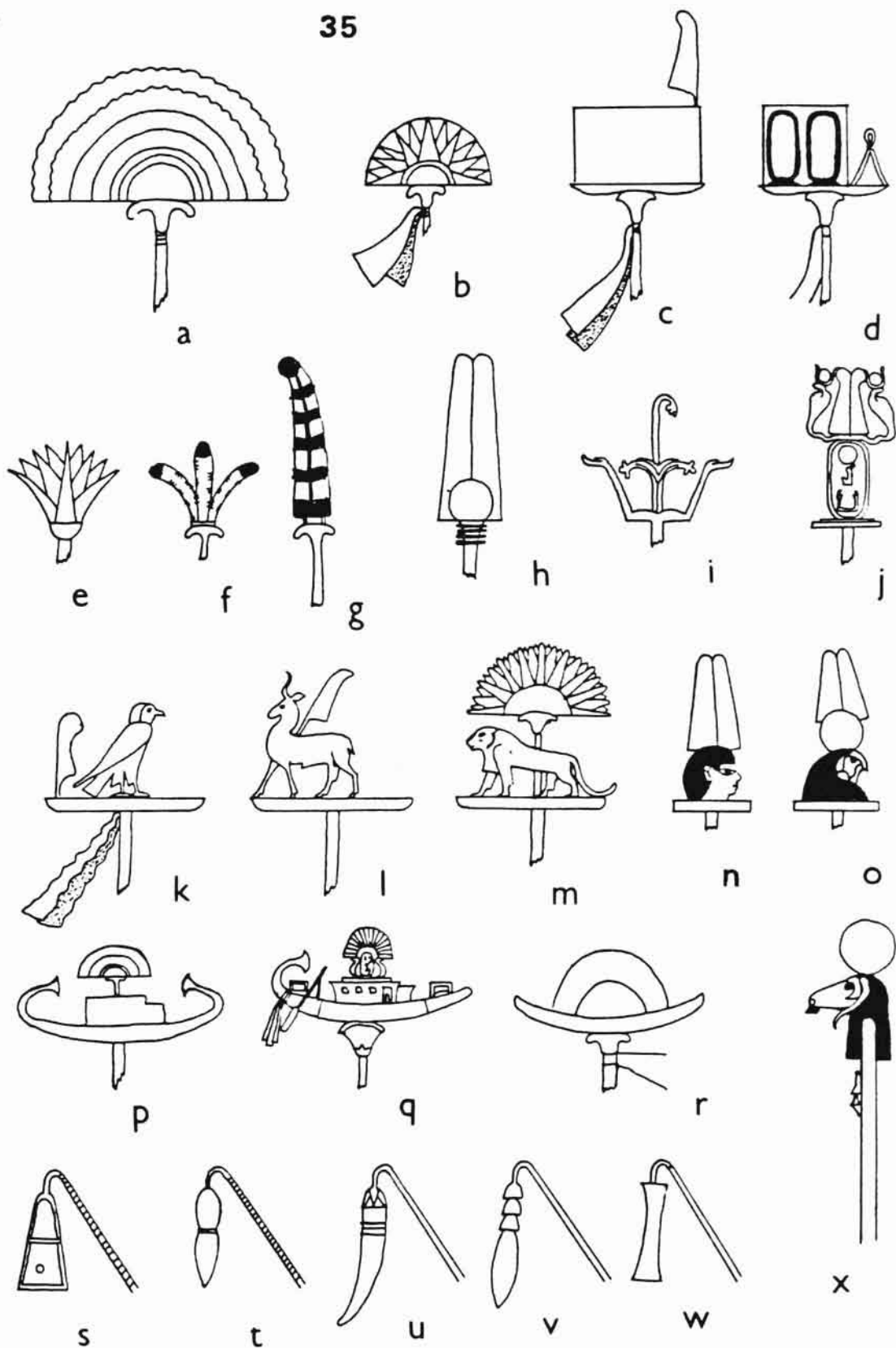
35f and g are ostrich plume standards carried by chariotry and high ranking staff (in their role as chariotry officers?). This would be ideal for signalling basic movements to a troop of chariotry.

35h is a *djed*-pillor surmounted by a solar-disc and plumes, a symbol of Abydos.

35i is depicted at the temple of Hateshepsut at Deir-El-Bahari and consists of a papyrus plant (symbolic of Upper Egypt), rising from a *ka* sign, (usually meaning 'spirit', but here it is probably part of a place-name). The troops around it are labelled; 'troops of Upper and Lower Egypt, Youth of Thebes and Recruits of Khenthennefer' (a Nubian region).

35j contains the 'throne name' of Queen Hatshepsut, (*Maatkare*), enclosed by a cartouche which always encircles royal names. It is surmounted by two royal cobras and plumes.

35k, l and m bear animal motifs. 35l seems to be associated with Theban militia.



35n is a human head surmounted by a double plume. 35o is the head of the sun-god Ra.

35p, q and r are probably the standards of 'ships contingents' being a combination of infantry fan with a ship device. 35q is from the tomb of Nebamun and belonged to 'the king's ship *Beloved of Amun*'.

35s-w are representative of a curious type of standard that often accompanies the fan type. They seem to be some sort of hanging object. 35u is coloured red below the lotus-flower, with thin red and yellow horizontal bands.

35x is the standard of the army of Amun. It comprises the head of the sacred ram of Amun surmounted by a solar disc appropriate to the god's full name of Amun-Ra. A small figure of the Pharaoh is fixed below his countenance. This standard was larger than normal standards and carried in a chariot of its own, accompanied by a driver. It led the army on the march. This was presumably the case with the other armies. The standard of the army of Ra would be similar to 35o, that of Set (or Sutekh) to 10d, without the archaic features, and Ptah would possibly be represented by a bull, (the sacred *Apis*-bull).

Standard-poles were usually yellow. The wigs of gods would be blue. The colours of the hieroglyphs would vary according to the sign concerned. Solar discs would be yellow or gold. Primary colours and green would predominate. Ostrich plumes which were not dyed would be white with black tips.

36 & 37. LIBYAN OR KUSHITE-EGYPTIAN INFANTRY 7TH CENTURY B.C.

These figures are derived from an Assyrian palace relief dating to the reign of Ashurbanipal (668-627 B.C.). They appear defending a fortified Egyptian temple enclosure which must represent either Thebes or Memphis during the revolts of 667 or 666/3 B.C. Although these figures are usually regarded as Kushite, on account of their 'Nubian' features, contemporary Egyptian troops would have been similarly dressed and equipped. Indeed glazed tiles from Nimrud, probably of the reign of Esarhaddon (680-669 B.C.), show identical fair-skinned soldiers.

The plume may simply be a designation for 'soldier', and not especially associated with the Kushites, since the plume was the insignia of the Meshwesh military caste.

The small round shields bear a curious 'hollow-sided square' device. This could be an extra piece of hide, (possibly a green hide as the Assyrians in the relief are using firebrands), to increase its protective qualities or merely as a decorative motif.

37 wears lamellar armour which could have been captured from Assyrian, or Assyrian-equipped garrisons overrun during the revolts. One figure in the relief wears a simple jerkin with Assyrian 'pteruges' along the lower edge (see also fig. 25a).

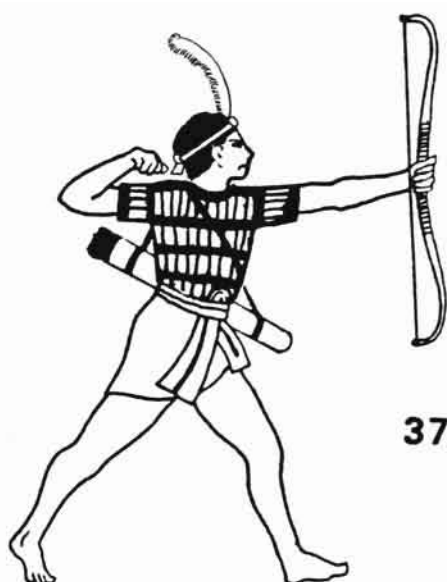
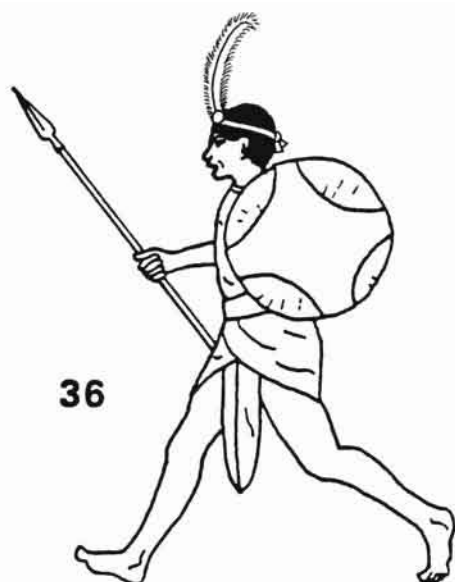
38. LATER EGYPTIAN MOUNTED PHARAOH

Tefnakht is the first recorded example of a Pharaoh riding on horseback, but this may have been due to the exceptional circumstances at the siege of Memphis, when haste was necessary. Riding in a chariot would certainly remain the rule on most occasions, as with all contemporary rulers. However, it does demonstrate that the king was likely to be proficient in all aspects of horsemanship. Herodotus records that Amasis rode a horse when he was in rebellion against Apries, and so the practice cannot be ruled out for nobles and officials, according to the requirements of active service. That the Egyptians possessed effective cavalry at least by the time of the Kushite 25th Dynasty is attested by Assyrian records.

This figure wears a lamellar corslet, but scale, sheet-bronze, textile corslets or a corslet of Greek design are equally possible. Herodotus records that Amasis donated a linen corslet to the temple of Athene at Lindos on Rhodes. The earlier textile corslet illustrated in 25a might perhaps serve as a guide to the possible appearance of such a linen corslet.

The horse wears a necklace of blue faience beads such as adorned the bodies of horses buried in the tombs of several of the Kushite Pharaohs at El Kurru in Nubia. After the loss of the Egyptian Empire, most of the military activity took place within the Nile valley and so it is possible that the restrictions of the landscape might encourage the use and development of cavalry as a partial substitute for chariotry, especially in scouting and skirmishing roles. This may have taken place in Egypt independently of the same process occurring at this time in the rest of the Near East.

38a shows the head of the Kushite Pharaoh, Taharqa (690-664 B.C.), from an Assyrian stela. The helmet is perhaps a metal skull-cap with the royal cobra affixed to it.



38



39

39. LATER EGYPTIAN PHARAOH

He is based mainly on Egyptian-style representations on ivory objects of Phoenician origin and dates to the 9th or 8th centuries B.C. He wears a short kilt over a longer kilt and shirt, all probably of fine white linen. Egyptian shirts were usually a simple length of cloth with an opening for the head half way along its length. The sides were tucked into the kilt to form wide sleeves, but garments with sewn sleeves were also known. All the traditional Pharaonic trappings are present, including the broad collar and uraeus-apron. He carries the *heqa* scepter and the flail, symbols of royal authority throughout the dynastic period. The 'blue-crown' continued to be worn into the 30th Dynasty.

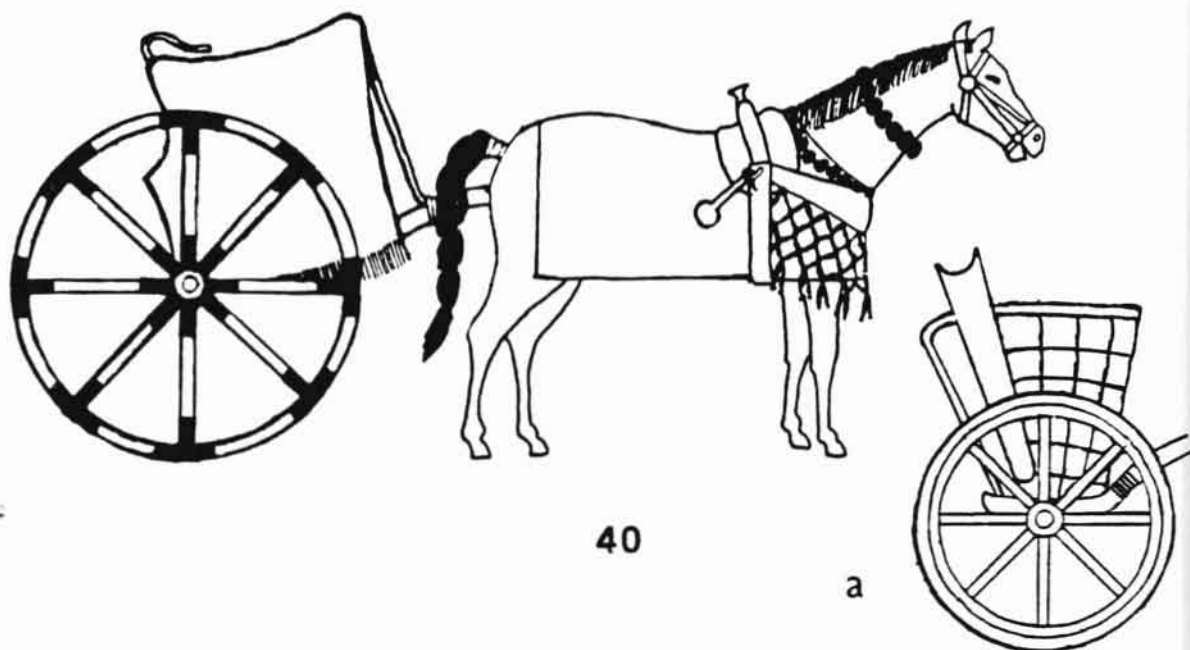
39a shows an axe, the blade of which bears the name 'Sheshonq', and illustrates the form this weapon took in the 9th century B.C. Scales from the tomb of Sheshonq I indicate that armour, like that of figure 30, continued to be worn by Pharaohs into this period.

40, 41 & 42. LATER EGYPTIAN CHARIOTRY c. 8TH TO 6TH CENTURY B.C.

It is not clear how long New Kingdom designs remained in use, and some of the later representations of chariots may be misunderstood copies of older types or deliberate archaizing (a frequent occurrence in art during the 7th and 6th centuries). The more reliable evidence indicates that Egypt kept pace with chariotry development in the Near East during the 1st millennium B.C. The change from six-spoked to eight-spoked wheels occurred during or shortly after the Libyan period, and the cab then began to acquire a rectangular plan and box-like appearance. A drawing of a four-horse chariot on a limestone block shows a cab similar in design to that depicted in a Neo-Hittite relief from Sakcagozu, and to another on a Syrian-style plaque among the Nimrud ivories. This chariot is shown in 40. The cab is possibly covered in fabric, as it has a fringe along its bottom edge. The wheels are quite large and the cab is raised high off the ground like Assyrian chariots. A hand-grip is required to assist mounting. These features could place this chariot as early as the 8th century B.C.

The horses are wearing faience bead necklaces as found on horse burials in tombs of the Kushite Pharaohs at El Kurru. Traces of matting covered by cloth were also found on the bodies.

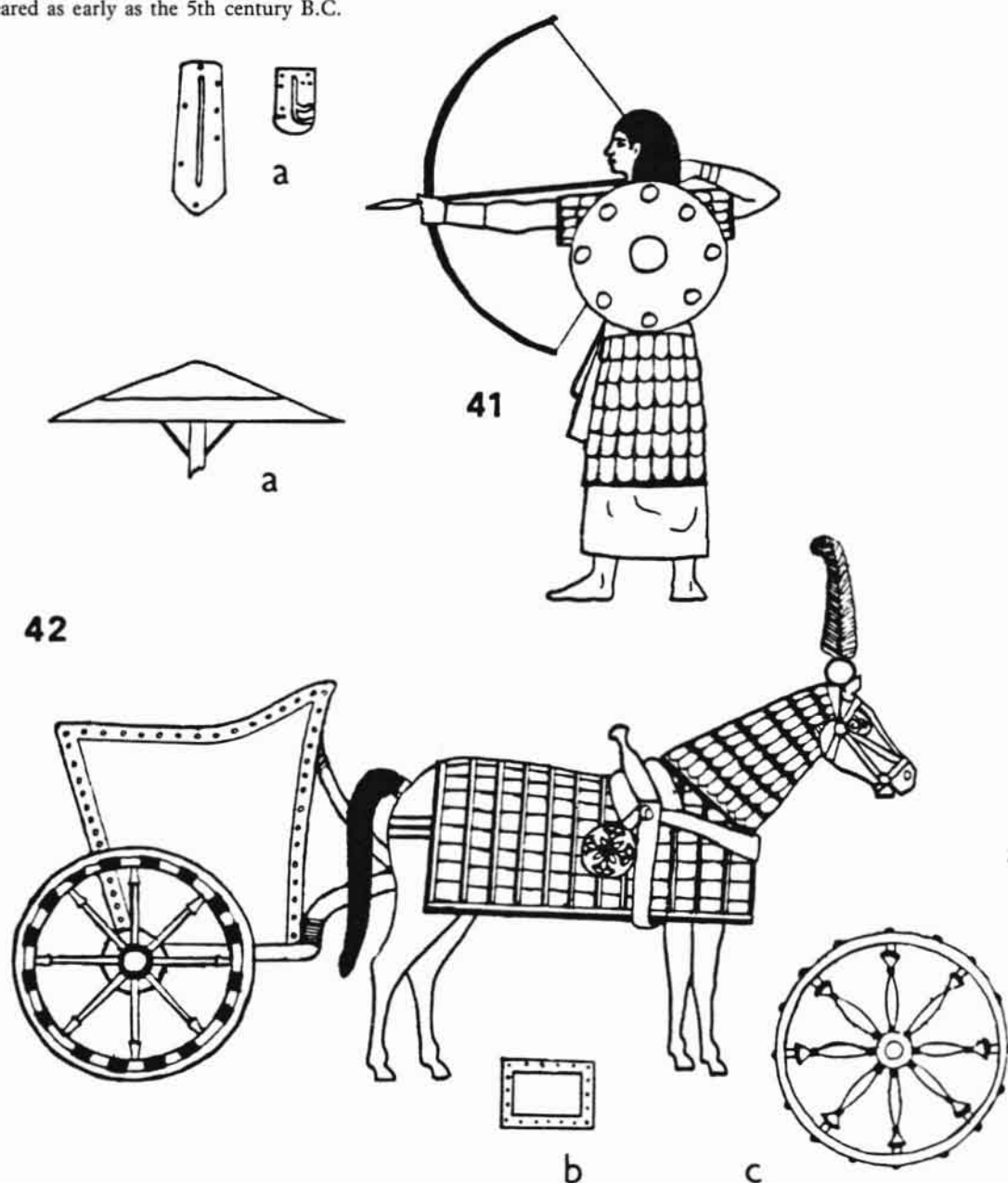
The chariot 40a is from a faience bowl from Tuna dating to the Libyan period. It could be simply a misinterpreted New Kingdom type copied from older representations. It has a design similar to earlier chariots with, perhaps, a quilted cover stretched over the frame leaving fenestrations at the sides of the cab.



A possible reconstruction of a chariot crewman is shown in 41. Round shields were in use with chariotry as early as the reign of Ramesses III. Long coats of scale were common among Near-Eastern chariot crews during the 10th, 9th and 8th centuries B.C. and 41a shows some scales dating to around 750 B.C. from Egypt. The annals of Esarhad-don, concerning his invasion of Egypt, refer to Egyptian chariots crewed by three men. They are specified as 'holders of reins', 'chariot chiefs' and 'third men on chariots'. Interestingly, Assyrian sources show Egyptian chariots as little changed from New Kingdom designs, aside from having eight-spoked wheels.

Although it is quite likely that 40 could be a Saite period vehicle, 42 is an attempt to reconstruct an Egyptian chariot of the 7th or 6th century B.C. The box is rectangular in plan and based on representations of chariots from Cyprus and Phoenicia. These areas were receiving a strong Egyptian influence at this time and are likely to have been close to Egypt in chariot design, since they represent one channel through which Egypt would become acquainted with Near-Eastern developments. The wheel is based on an actual example found in Egypt. Near the base of each spoke is a hole through which a rawhide thong could be threaded. As the thong dried out, the spokes would be held firmly to the nave. 42a is a sunshade, shown on what appears to be a Pharaoh's chariot. The horse-armour consists of

rows of metal plates, and follows a pattern known in Syria. 42b is an example of such a plate from Nimrud. 42c is an ornate wheel of the Ptolemaic period (from a ritual vehicle). The spokes are carved in the shape of papyrus stems and hobnails are fixed to the rim in the manner of some Assyrian chariots. This type of wheel may have appeared as early as the 5th century B.C.

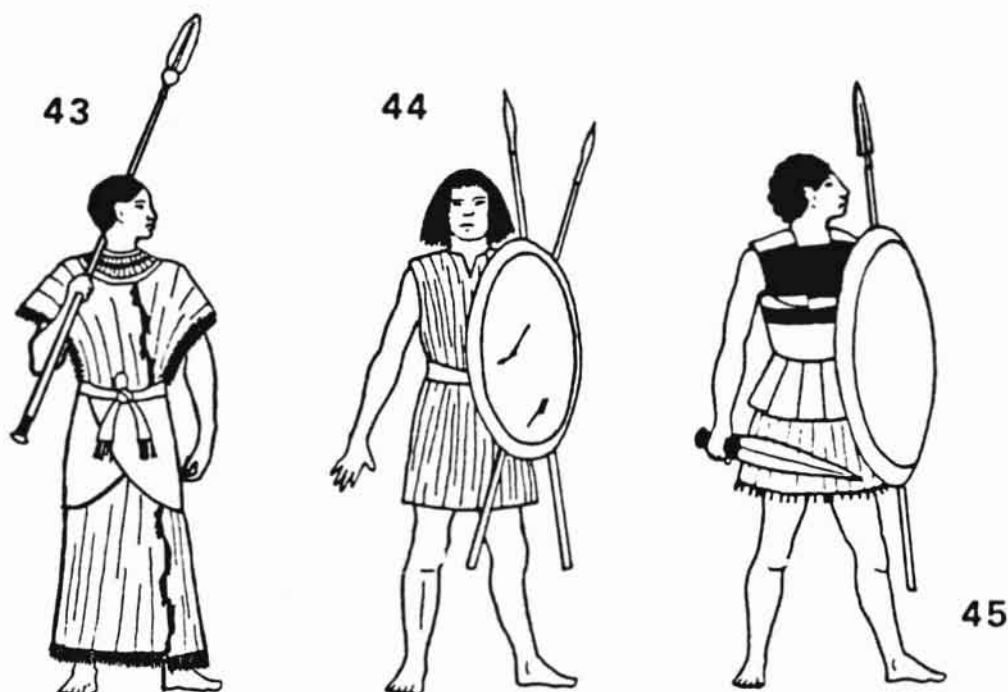


43, 44 & 45. SAITE EGYPTIAN INFANTRY, 7TH TO 6TH CENTURY B.C.

Figure 43, who might be an officer, is dressed according to a description of Egyptian apparel by Herodotus, backed up by representations on Greek painted pottery, Levantine carved ivories and Egyptian tomb scenes. It consisted of a linen tunic with a fringed lower edge called a *calasiris*, over which was worn a white woollen kilt. Figure 44 appears on a decorated metal bowl of Phoenician manufacture. This figure would date to the 8th or 7th centuries B.C. Cavalry from the same source as 44 are dressed and armed identically, but lack shields.

Nubian soldiers wearing elements of Greek, Persian and Scythian costume (such as patterned tunics and trousers) are depicted on some Greek painted pottery. They may have been inspired by the appearance of troops seen by Greek traders in the streets of Cyrene or Naukratis. Nubia was always a major recruiting ground for the Egyptian army, and Greek equipment could easily be obtained through trade, or manufactured in Egypt by Greek artisans, perhaps in the Greek colonies or military settlements. Figure 45 is wearing a linen corslet.

Some troops from the same source as 44 are dressed identically but wear a helmet with a crest like 47. The nose-guard and cheek-pieces are not present and it is held on with a chin-strap. This could be an Egyptian variant of the characteristic Karian helmet.

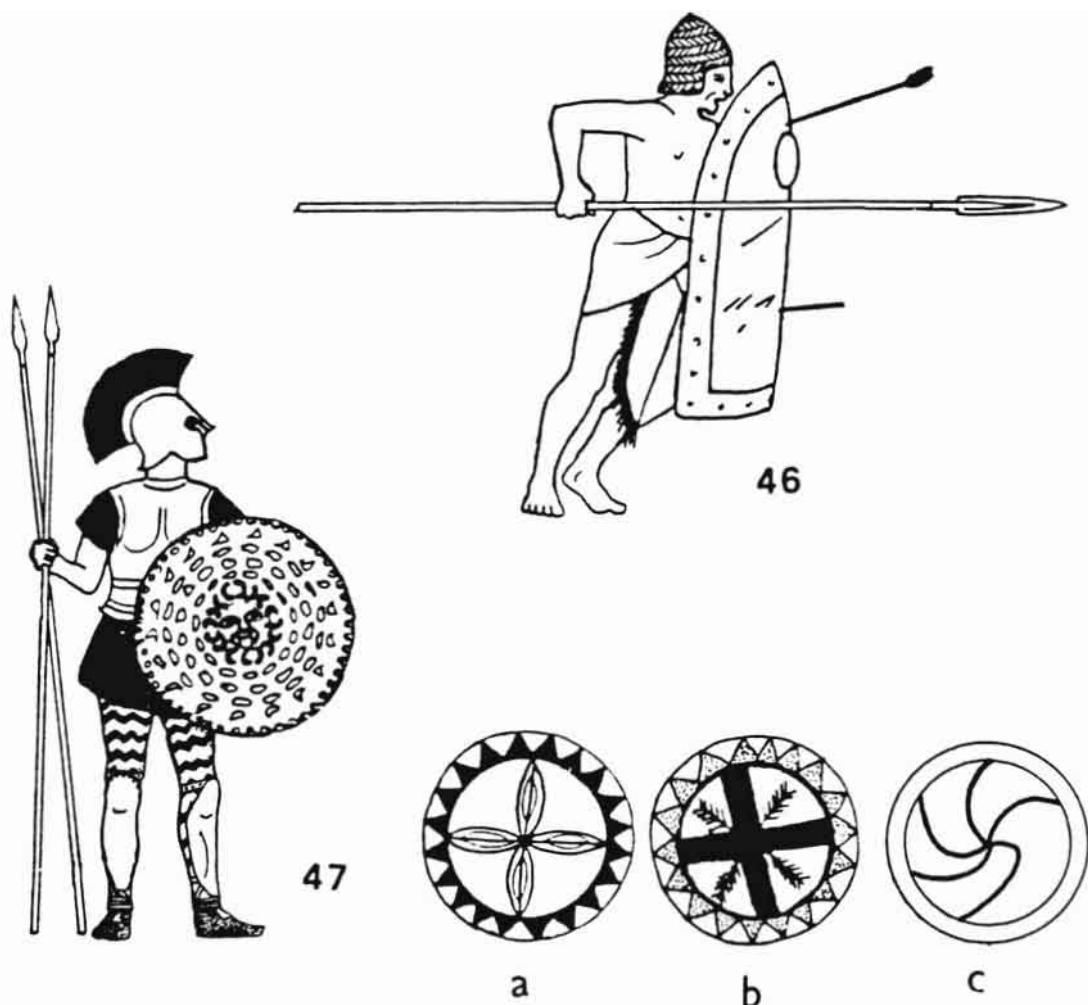


46. EGYPTIAN SPEARMAN, 30TH DYNASTY

This figure is a reconstruction of a close-formation spearman of the Persian period (which includes a period of independence under the 28th, 29th and 30th Dynasties), following the descriptions of Egyptian troops given by Herodotus and Xenophon. Herodotus says that Egyptian marines in the Persian fleet wore reticulated helmets and corslets and were equipped with concave broad rimmed shields, long spears, axes and scimitars. Xenophon records long spears and similar shields which were well-designed for close-formation fighting. Infantry of this type may have been originally developed in the Saite period when a cultural renaissance was taking place and there was a great deal of interest in the past. The Saite Pharaohs may have tried to create an army on the traditional model and could have copied items of uniform from ancient reliefs (which was certainly done in the case of artistic composition).

That the Egyptians may have re-introduced the traditional shield after a long period when the round shield appears to have been most common is not only suggested by the descriptions of Herodotus and Xenophon, but perhaps more significantly by the introduction of shields of this type into the Assyrian army immediately following their contact with Egyptian troops.

The main weapon of the close-combat infantry was the *niw-en-djeret*, literally 'hand spear' (i.e. thrusting or stabbing spear) which existed in long and short versions during the Persian period.



47. IONIAN, KARIAN OR LYDIAN MERCENARY, 7TH TO 6TH CENTURY B.C.

This *haw-nebu* or 'new foreigner' carries a bronze-faced shield bearing a gorgon's head device, like the example found at Carchemish dating to the defeat of the Egyptian garrison by the Babylonians in 605 B.C. The Corinthian helmet features a 'cocks'-comb' crest, as represented on some pottery heads of foreigners from the palace of Apries in Memphis and in a siege scene from a Cypriot bowl. He uses a pair of javelins and so may pre-date figure 46, as the Egyptians may have adopted the long spear from the Greeks, appreciating its suitability to their close-order style of fighting.

The main elements among the Greek mercenaries employed by the Saite Pharaohs were Karians and Ionians from Asia Minor. Lydian terracotta plaques in Greek style depict similar warriors to 47, who may either have been Greek mercenaries from the colonies of Asia Minor, or may possibly indicate that native Lydians had adopted Greek equipment and methods of fighting around 600 B.C. It is possible that the 'brazen-men' employed by Psamtik I of Egypt were Lydians sent by Gyges. Assyrian annals of Ashurbanipal record that Gyges sent troops to help Psamtik drive out the Assyrian garrisons and defeat his Egyptian rivals.

This figure wears sandals and Assyrian-style socks under his greaves as shown in terracotta plaques. Alternative shield designs are shown in 47a-c.

48 & 49. LIBYAN WARRIORS

The name 'Libya' derives originally from the Libu, a tribe which appeared at the end of the Egyptian New Kingdom among the invaders of Egypt. They figure prominently as an element among the considerable Libyan influxes of the succeeding period. The term 'Libyans' is used here to embrace three main peoples. The oldest inhabitants of Egypt's western fringes were the Tjehenu, who were closely related to the Egyptians. The Tjemehu were light-skinned and fair-haired, and probably crossed into North Africa from Europe in remote prehistory. The Berber tribes, including the Meshwesh and Libu, appeared from further west towards the end of the New Kingdom as the Sahara became more arid. These put pressure on the older established peoples, who were doubtless also suffering. This ultimately led to mass settlement in Egypt.

On the whole, Libyan dress consisted of very little. The basic garment was a phallus-sheath of leather attached to a waist belt. With this could be worn a cloak which covered the left shoulder, with a hole for the left arm, and tied up on the right shoulder, leaving this arm free to use a weapon. This was made of bull-hide or the skin of another animal, such as giraffe or lion. Alternatively it could be made of plain coloured or patterned cloth. There were usually coloured or patterned borders and sometimes horizontal bands across the garment. Colours used were red, blue, yellow, black and white.

The body was sometimes decorated with tattoos or painting. The hair was plaited into thin plaits, and might be further adorned with mud and one or more ostrich plumes. This plume was considered very important, and may have indicated tribe or status. The inscriptions of Merenptah record that the defeated Libyan chief was deprived of his plume by his followers as a mark of disgrace. Figure 48 is a Libyan chief.

Weapons included throw-sticks, javelins and the bow. Many tribesmen involved in the attacks on Egypt during the later New Kingdom had acquired 'copper' swords of Sea-Peoples type and a few, apparently Egyptian-style chariots. A typical warrior is shown in 49.

The Libyans did not use shields. The best explanation for this might be that the cloak fulfilled this function. It appears to be a rather thick hide or fabric garment, covering the left side and back, leaving the right arm unimpeded to use weapons. In combat the left arm could be withdrawn to allow the cloak to be swung in front of the wearer, giving him greater coverage than a shield. Besides the thickness of the material, the force of a missile would be absorbed by the movement of the cloak as it struck. This idea occurs elsewhere in the Near East, usually preceding the invention of shields.

The sources for 48 and 49 mainly date to the New Kingdom, but Libyan dress in earlier times was very similar. A head of a Libyan from a Middle Kingdom tomb at Beni-Hasan is shown in 49a. He wears a long, sleeveless, dull-brown shift. The appearance of 49 was most common among Libyans in the Old and Middle Kingdoms, (except for the sword), as were the bands crossing the chest and passing over the shoulders as in 49b. These are made of beadwork and may have been intended as some form of protection.

50, 51 & 52. NUBIAN WARRIORS

The inhabitants of Lower Nubia or *Wawat*, were physically akin to the Egyptians but somewhat darker while those of *Kush* or Upper Nubia probably included a strong Negro element.

Clothing usually consisted of leather or animal-hide garments, and exotic skins such as lion, cheetah and antelope were favoured. Belts and sashes were probably made of leather and decorated with beadwork. Jewellery made of ivory, wood, bone, shell, stone and gold was often worn. Hair was decorated with mud or arranged in rows of horizontal ringlets. This could be further adorned by ostrich plumes, headbands or leather caps.

Most tribesmen were archers, using a simple stave bow known as the *setej*-bow. Other weapons included clubs, daggers (with bulbous grips) and possibly a few javelins. Shields were simply oval sections of hide stretched over a frame.

Figure 52 is a chief, from the Late New Kingdom. A more 'Egyptian' appearance would be possible among the more settled and wealthier elements of the population as Egyptian cultural influence took root. The Medjay, a nomadic tribe from the deserts east of the Nile in Lower Nubia were favoured as mercenaries in Upper Egypt from the Old to the early New Kingdom. They are probably to be equated with the 'Pan-Grave' people, whose excavated cemeteries suggest an appearance similar to figure 50.



53. EARLY WARRIOR FROM CANAAN OR SYRIA c. 3200-2200 B.C.

The watch-tower found at ancient Jericho demonstrates that warfare in the ancient Near East is almost as old as urban life and the practice of agriculture. The wealth of settlements tended to be simply regarded as a resource that could be exploited like any other in the world, thus provoking organised resistance from those in possession. This warrior dates from considerably later than the first evidence for warfare. He is derived from representations in early Egyptian art, such as an ivory plaque of King Qaa of the 1st Dynasty. The 5th Dynasty tomb of Inti at Deshasheh contains a scene of the siege of a Canaanite town defended by warriors dressed like 53.

Finds from tombs and hoards show that weapons included javelins, daggers, flat and crescent shaped axes and maces. Small copper plates from Kfar Monash could be from some sort of body armour.

54. SUMERIAN RULER c. 3500-3000 B.C.

This figure is based on representations in the arts of the Uruk and Jemdet-Nasr periods of Sumerian prehistory.

Early Sumerian rulers used the title *EN* 'lord' and their office combined both sacred and secular functions. Indeed, the *EN* appears to have originally resided in, or very near, the temple of the city's patron deity. During the Early Dynastic period the title *EN* came to be applied solely to priests.

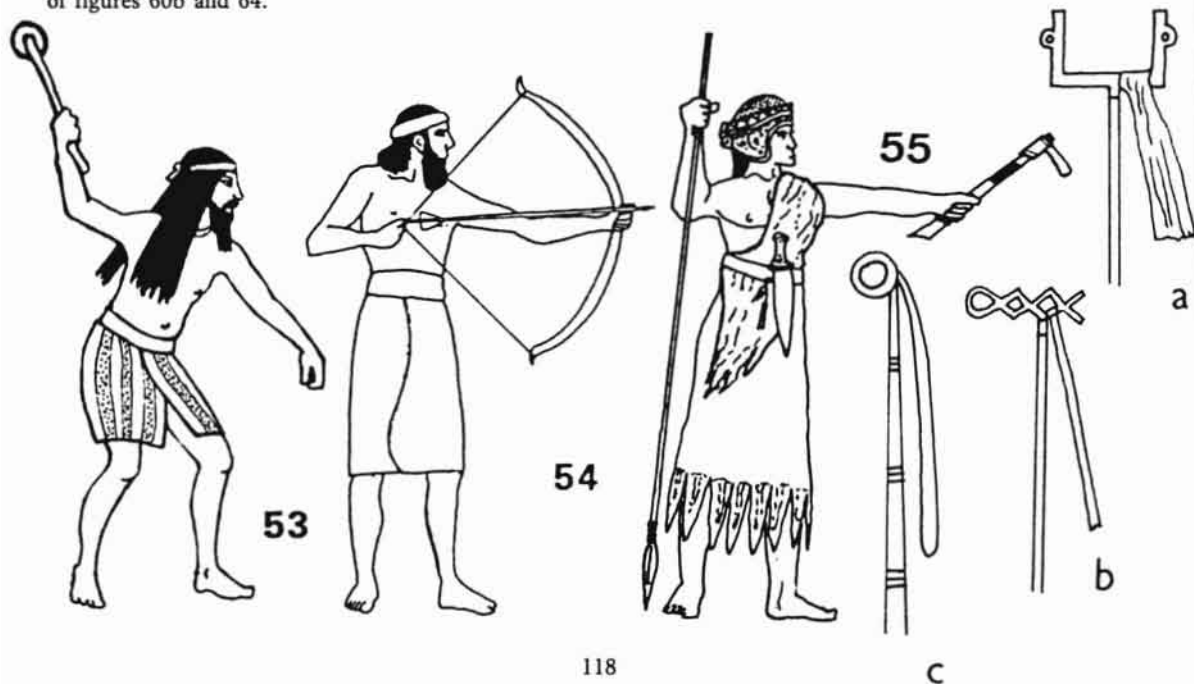
His dress here consists of a knee-length, wrap-around kilt of woven wool, secured by a wide waist-band. When performing in his role as a priest, however, the *EN* wore a 'see-through' kilt made of netting, possibly because of an association of nudity with religious purity. His hair is bound with a headband, apparently indicative of his rank, and though bearded, the upper lip is clean shaven.

Artistic representations of the period make it clear that the bow, as well as stout thrusting spears, was used both in hunting and in warfare. One representation, on an Uruk period cylinder-seal, clearly depicts a bow-armed *EN* shooting arrows at his fleeing enemies. The type of bow portrayed is characteristically double-curved with reflexed tips — indicating an advanced composite construction of several layers of wood, horn, and sinew. An even earlier, though rather more ambiguous, representation of a composite bow occurs on a Halafian period vessel of c. 5000 B.C. from Tell Arpachiyah, near Mosul in northern Iraq.

Arrows were made of reed with arrowheads of flint, either leaf-shaped or transverse in form.

Other weapons attested include slings, javelins, stone maces and copper axes.

The majority of warriors would have dressed in a similar fashion, though their hair would have been in the style of figures 60b and 64.



55. A KING OF UR c. 2600 B.C.

The source for this figure is the tomb of the *LUGAL* Meskalamdug ('Hero of the Good Land').

A great number and variety of weapons were found deposited in this grave, including both lunate and socketed 'chisel' axeheads of bronze, fine copper spearheads and numerous flint arrowheads, together with what could possibly be the metal parts of a composite bow.

The king is shown here with a sheepskin over his left shoulder, held at the waist by a narrow silver belt which supports a dagger and a lapis-lazuli whetstone. His woollen kilt has a dagged, 'fleecy' hem which became popular in the Early Dynastic period.

The helmet, made from a single, flat sheet of electrum, imitates an elaborate coiffure with two plaits brought together and bound above the forehead, the hair at the back of the head being represented in a bun. The king's real hair however is worn loose and emerges from beneath the rim of the helmet to fall down his back.

The helmet was thickly padded with wool and leather, this lining being secured to the metal shell through holes about its rim. This padding not only kept the helmet on the head but offered further vital protection against the specialised socketed axe evolved by the Sumerians. These axes, as illustrated carried by the king, have heads cast in bronze or copper on a short wooden shaft, often decorated with bands of gold or silver sheet. The blade, with a narrow section was designed for piercing, not cutting, and was obviously evolved to defeat the protection of a copper helmet. This is by far the commonest type of axe from the Early Dynastic period though crescentic cutting axes are attested in small numbers.

The dagger carried by the king in a leather sheath, or in a gold, openwork scabbard, has a gold blade and in battle would probably have been replaced by a copper-bladed substitute. The hilts, either of wood or lapis-lazuli could be decorated, as here, with gold granulation and gold pins.

The spear carried is of a ceremonial type, found upright in the grave, and was 1.80 metres in length (excluding the head). 55a and 55b illustrate two military standards shown on late Uruk and Early Dynastic period cylinder seals. 55a represents a temple doorway with the two, typical looped doorposts, 55b is symbolic of an unknown minor deity. 55c is the standard of the Goddess of Inanna of Uruk.

56. EARLY DYNASTIC BATTLE-CAR c. 2800-2334 B.C.

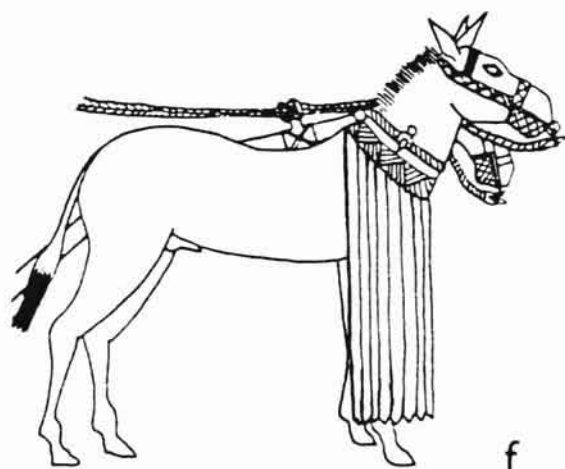
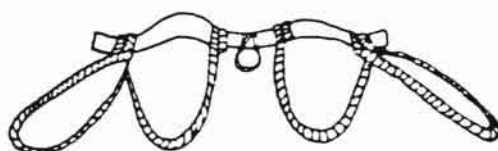
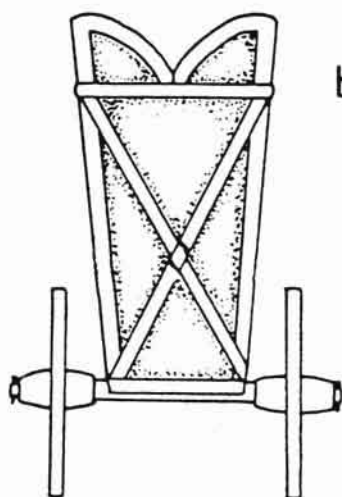
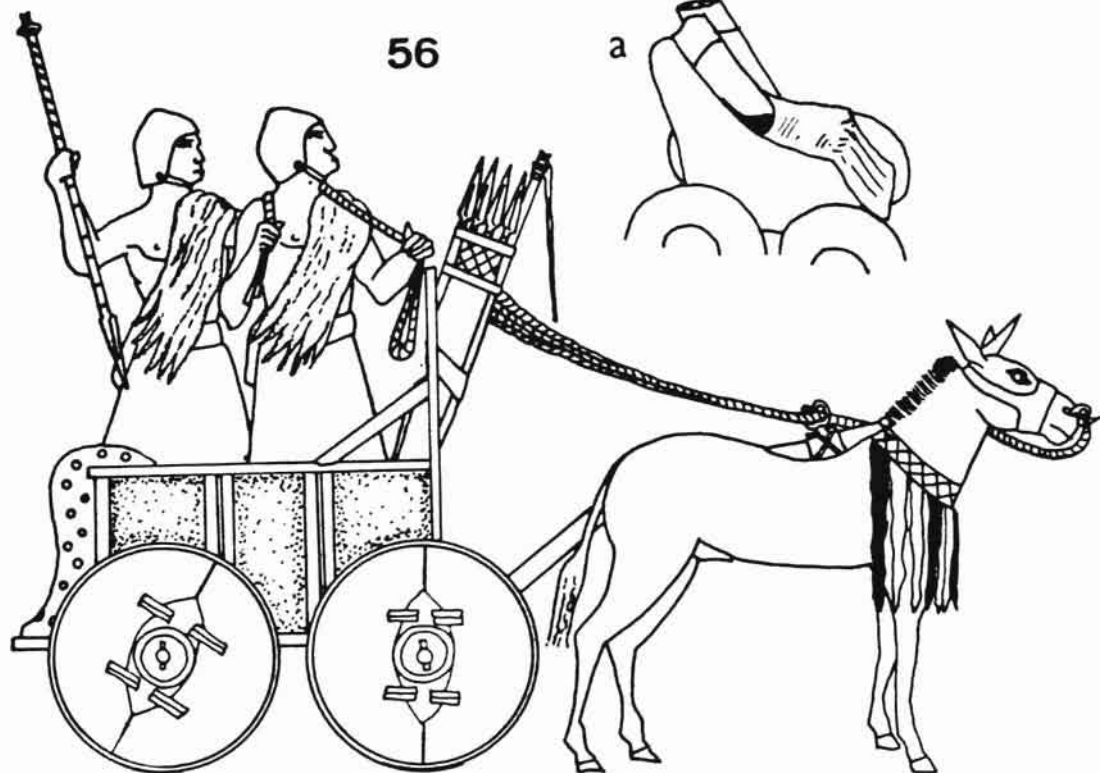
Four-wheeled battle-cars, as here illustrated, occur in military contexts from the Early Dynastic II period, and probably fell out of use in the early Akkadian period. Texts of the period describe such vehicles, *gish GIGIR*, as issued to troops going into battle, and being returned afterwards.

The battle-car's body was made from thin wooden struts backed with red-dyed ox-hide. The floor was very narrow, only wide enough for one occupant abreast (0.45-0.56 metres) and appears to have been solid. The cab-front, as shown in 56b, was high to offer protection to the driver, though the sides were low; the floor projected back beyond the sides and the rear is often shown closed with a protective cover (56a). It is possible that the sides conceal a seat across the back, behind the rear axle (cf. figure 58).

The solid disc wheels revolved on fixed axles with lengths between 0.70 and 1 metre, the actual wheels being carefully constructed from three pieces of wood in order to obtain a greater diameter than that possible from a single section of tree-trunk. The three sections were bound together with external slats or ropes, perhaps also dowelled together internally, and the whole consolidated with either a leather, reed or wood tyre. The tyre could be strengthened with copper hobnails as in figure 58. Composite wheels such as these were stronger than single-section wheels and, being large, allowed much higher speeds. The diameters of wheels from battle-cars excavated at Ur, Kish and Susa vary from 0.50 to 1.05 metres. The wheel naves were long to prevent them wobbling on the axle.

Draught for the vehicle was provided by four equids, either hemiones and domesticated asses (*ANSHE*), mules (*ANSHE.BAR.AN*), or their possible crosses. The true horse, though possibly attested for this period under the name *ANSHE.SHUL.GI* does not, as yet, appear as a draught animal for battle-cars. 56c shows the method of harnessing the team with simple rope collars, two animals actually being under the yoke, the outer two acting as outriggers to encourage them. The harness detail of 56f is taken from representations from Mari, which show the harness in great detail. The method of control, with reins and nose-rings, is for braking only with little or no directional control possible.

56



A modern reconstruction of a battle-car pulled by four donkeys managed speeds of between 10-15 mph. It should be noted that hemiones can run at great speed but are poor draught-animals, they make up for this with a foul temper, hence the basketwork muzzles on the headstalls! Some protection is given to the team by a frontal trapper composed of leather strips, often dyed in alternate colours such as red and blue.

The double rein ring is in this case plain but they were often decorated with small figures of animals (cf. fig 57). 56d shows a common method of securing the quiver and an alternative design of chariot — this one being from Lagash.

56e shows a plumed charioteers helmet.

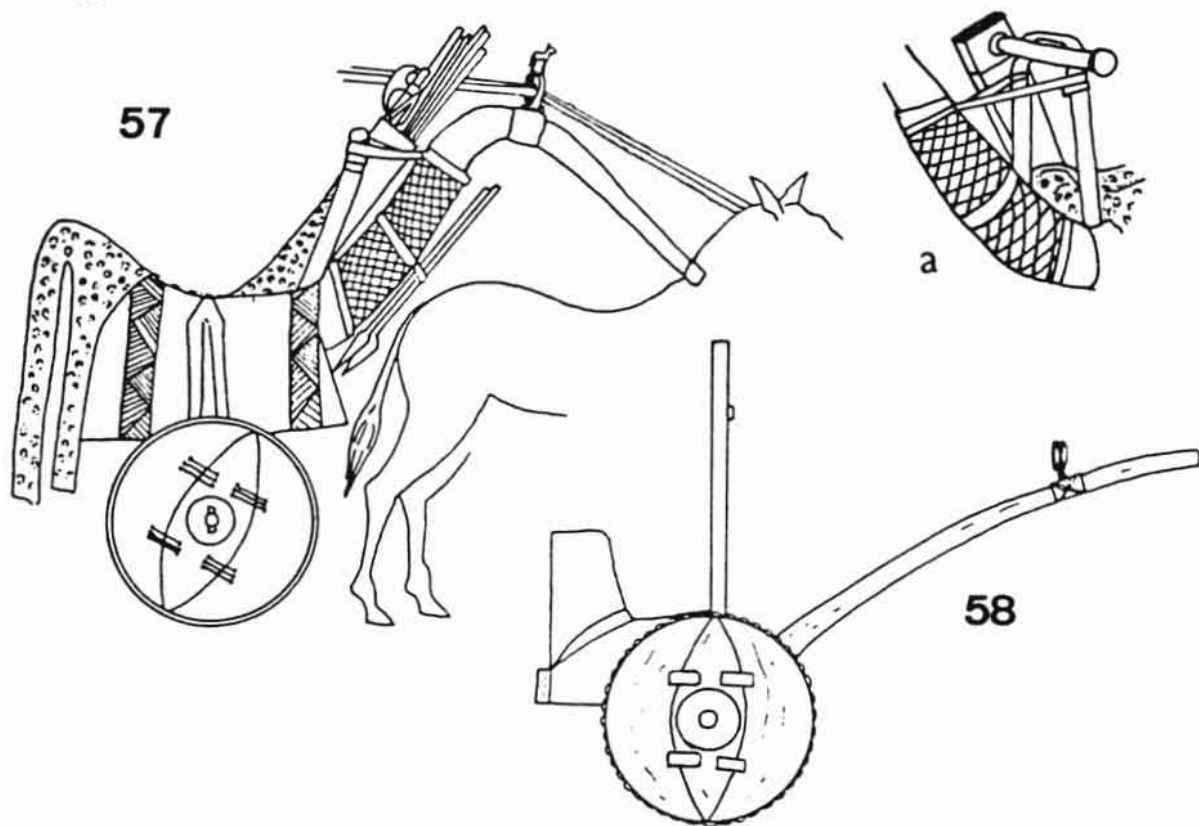
57 & 58. EARLY DYNASTIC SUMERIAN STRADDLE AND PLATFORM CARS

Two-wheeled vehicles in Mesopotamia followed two lines of development. The 'platform-car' (58) was apparently a simple variant of the four-wheeled battle-car with a similar high front, but only a seat for a single crewman instead of a cab. The 'straddle-car' (57) was also a vehicle for a single rider who in this case sat astride a thick padded saddle over the rear part of the draught-pole. This saddle was often covered with leopard skin. The draught-pole could be high and arching, braced by a thong from the front rail, (57a) or a simple straight pole. The front rail of 57 was a single piece of wood bent into a U shape, and sometimes had a horizontal cross-bar.

The quiver attached to the front rail contained javelins and axes. An extra pair of javelins could be slung beneath the draught pole of 57, where they could be reached in action.

Riders of straddle-cars sat or stood astride the saddle with their feet either on the fixed axle or on special rests in front of it.

Both types of vehicle were capable of higher speeds than battle-cars, being lighter and better balanced. It seems that they were used as command vehicles and for couriers in battle, though interestingly it is only the platform-car that appears to be the fore-runner of the true chariot.



59. SUMERIAN SPEARMAN: UR c. 2600 B.C.

This figure is based upon the foot-soldiers depicted on the so-called 'Standard of Ur', a hollow wooden box decorated with shell mosaic inlay, which once formed the sounding-box of a harp.

He is armed with a long thrusting-spear, *GID.DA*, which on the 'Standard', is shown as having a leaf-shaped head. Examples of actual spearheads excavated at Ur show a great variety of form, however, the commonest type is a 'poker' pike-head up to 0.35m. long (0.68m. including tang), square in cross-section. This type, cast in bronze, continued in use until the Akkadian period (cf. fig. 59b). Spears were commonly fitted with a domed copper butt-spike and protective copper collars at the base of the spearhead.

For protection he wears a copper helmet, secured by a strap under the chin, and a long cape, studded with copper disks, and fastened at the neck. Made either of thick felt or, more probably, ox-hide, capes of this type appear to have been a common solution to the problem of deflecting or absorbing missiles and blows in the absence of a shield (cf. figs. 48 and 73). The Sumerian two-handed spears would, in any case, have made the use of a shield difficult, and indeed, the earliest Sumerian shields are carried by special shieldbearers. Leather capes were probably dyed red or green, while felt capes would be a neutral buff, or off-white.

59a illustrates an alternative form of helmet, in this case excavated from the Royal Cemetery at Ur where it was worn by one of the soldiers killed to guard his king in the afterlife. The inside of the helmet was thickly padded with woven straw.

60 & 61. KING EANNATUM AND SOLDIERS: LAGASH c. 2500 B.C.

These figures, based on the well-known 'Stela of the Vultures', carved to celebrate the triumph of Eannatum and Lagash's patron god, Ningirsu ('The Lord of Girsu'), at the battle of the Gu-edina, show the king leading his soldiers into battle.

Eannatum is armed with a bronze sickle-sword, a slashing weapon invented in Sumer at this time, the shape possibly being derived from a flint-bladed original. The cutting-edge is on the outside of the curved blade.

He wears a copper helmet, its artificial ears, and bun of hair at the back, closely resemble the earlier helmet of Meskalamdug (fig. 59). His long hair falls freely over his shoulders.

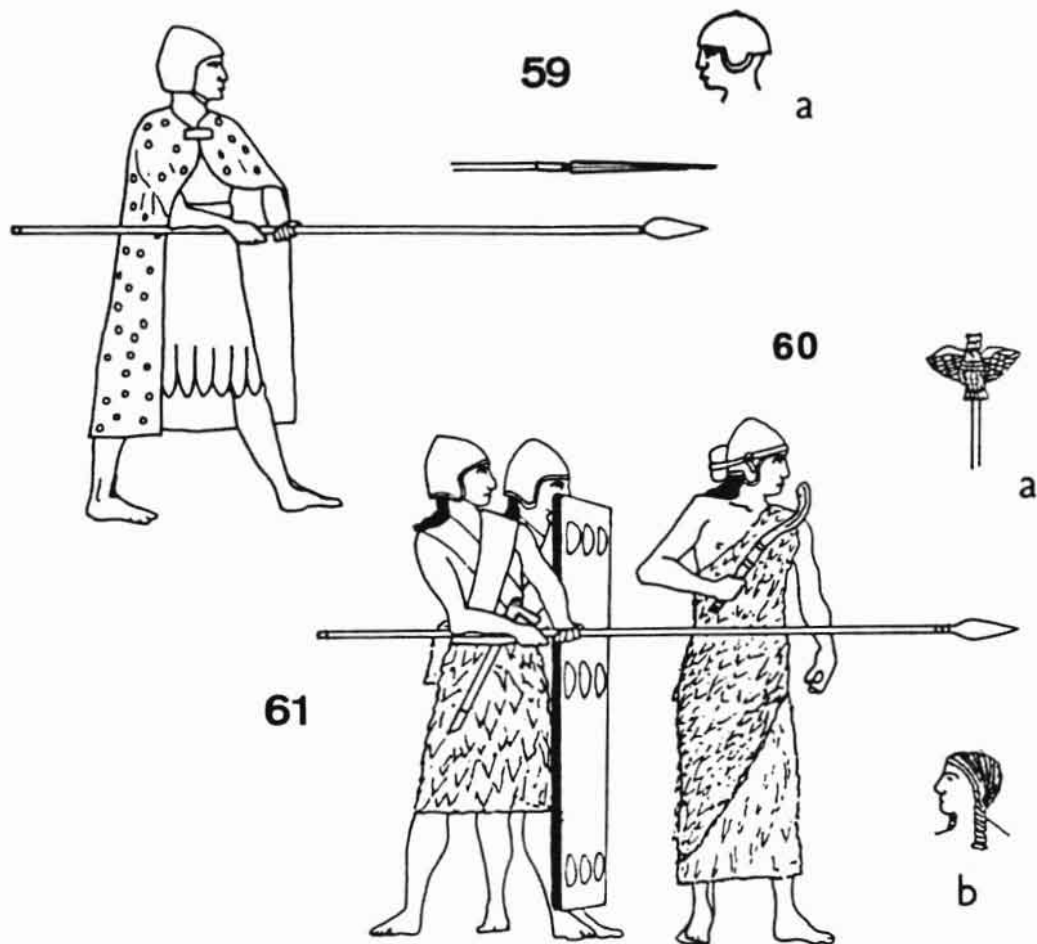
On the stela, Eannatum is shown wearing a sheepskin, passed over the left shoulder, above a long, fleecy kilt, which together are often referred to using the Greek term of 'kaunakes'. Around this time in the long Early Dynastic period (E.D. IIIb) it became the fashion, in Sumer and Sumerian influenced areas, to wear a kilt which was either of woven wool giving a fleece effect, or was actually a sheepskin, so tanned as to retain the wool.

Eannatum, who was apparently of Amorite descent as he had a second Tidnum tribal name, 'Lumma', was noted for his great height. He grew sufficiently powerful to assume the title 'King of Kish', gaining suzerainty of Akshak, Uruk, Ur, Umma and Mari, as well as Kish, and crushed an Elamite invasion of Sumer.

61. His soldiers wear similar, though less elaborate, copper helmets with extended, integral cheek-pieces. Several actual examples were found during excavations at Girsu, the main city of the Lagash state.

For protection of the upper-body, crossed leather belts, much later known as *tutittu* or *tutiwa*, are worn. This form of armour, in numerous variations, can be traced in use in Mesopotamia to at least the 7th century B.C. and was probably the ancestor of the later oriental 'mirror' armours. Here the crossed belts are plain, though other city-states (cf. figs. 62 and 63) employed studded versions which exhibit their ancestry in the earlier studded protective capes. The advantages over the latter type of protection would seem principally to be a greater freedom of movement for the arms, combined with a much improved economy of material.

The large, flat, rectangular Sumerian shield, first illustrated on the 'Vulture Stela', probably hastened the abandonment of the protective cape. Made of dyed oxhide and having nine (not six as is often stated) round, copper bosses on its face, each shield is shown as being carried by a special shieldbearer standing to the left of each spearman on the stela. This type of shield continued in use in Mesopotamia until the end of the Ur III period, being then completely displaced by the lighter, less cumbersome Amorite shields (cf. figs. 11b, 74b, 76, 77, 79, 80, 84). Both spearmen and their shield-bearers are shown armed with socketed copper or bronze axes. The spears are long *GID.DA* shown carried levelled at waist height, some six rows of spearheads projecting beyond the formation's wall of shields.



60a illustrates the emblem of Lagash's divine-standard, the lion-headed eagle or *IMDUGUD* bird, associated with the city's patron god, Ningirsu. This standard is depicted on the reverse of the 'Vulture Stela', carried by a goddess standing behind the victorious Ningirsu.

The standards of Umma's gods were carried into battle and a fragmentary military scene from Mari (the 'Standard' of Mari) illustrates a sacred-standard borne by a shaven headed priest. In battle these standards appear to have been carried by priests dressed as ordinary infantrymen.

60b shows the typical hairstyle of this period when no helmet was worn.

62 & 63. NORTH SUMERIAN SOLDIERS: MARI AND KISH c. 2600-2500 B.C.

Though situated on the middle Euphrates, in present-day Syria, the Semitic-speaking city-state of Mari was culturally Sumerian.

62 with his distinctive long beard, represents a high-ranking officer or king. He wears a low, flat hat, also attested at Kish and seemingly typical in linguistically Semitic areas of Sumer, being later worn by Akkadian officers, high officials and governors.

He is armed with a straight-bladed, flat-axe and, over his right shoulder, wears a variation of figure 61's *tutittu*. This less specialised version could be worn as the wearer, or situation, required, either over the chest, or even over the helmet as in 63b.

63a shows the type of helmet, square-cut beard and clean-shaven upper lip preferred by Mari's warriors. Charioteers otherwise dressed identically to the crew of figure 56, although noble crewmen tended to wear the 'kaunakes'.

Mari's archers (63), used the double-curved, or 'Scythian', composite bow common to all the city-states of Sumer. This figure, derived from a relief showing a siege scene, is the most unambiguous representation of Sumerian military archery. On the relief the archer is shown shielded by a charioteer holding a very large reed siege shield or pavise, identical to figure 61. Simple quivers would resemble figure 70a.

Soldiers of the city-state of Kish had a similar style of dress, though the studded *tutittu* are not in evidence.

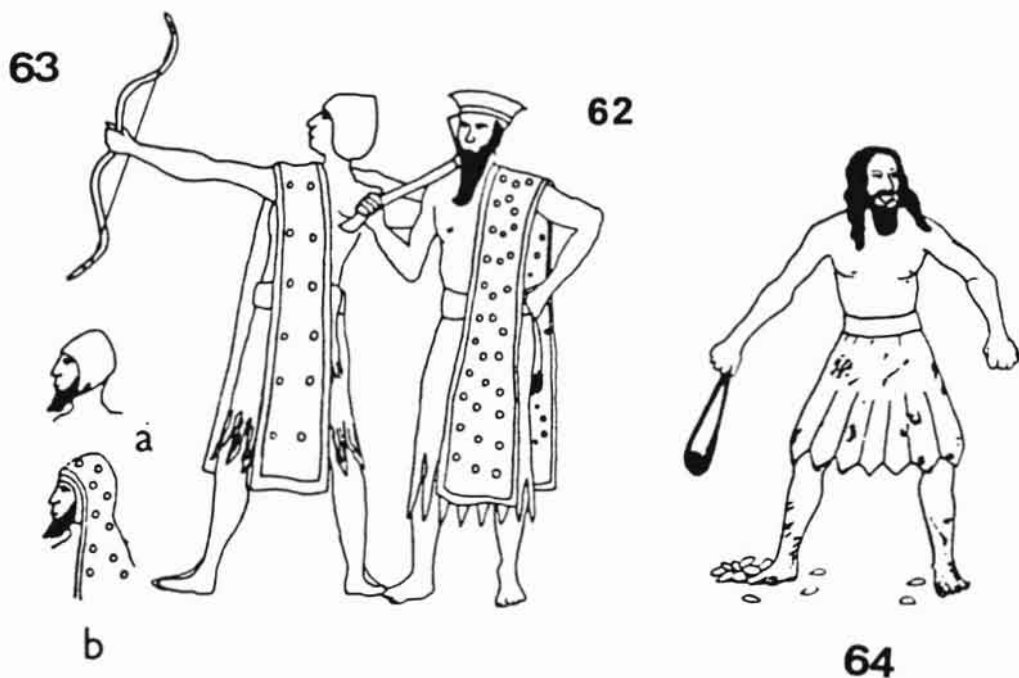
64. SUMERIAN SLINGER c. 3000-2330 B.C.

This figure is generally representative of the light skirmishers or *NIM* soldiers in Sumerian armies throughout the Early Dynastic period.

His hairstyle is typical of most city-states during the prehistoric and early E.D. periods. Completely shaven heads only appear to have become the fashion later in the south of Sumer; the northern, Semitic-speaking states, always tended to favour beards and long hairstyles.

This man is armed with a simple sling of plaited leather or straw, for which both stone and baked-clay shot is attested, in great quantities, from many sites. During the Early Dynastic period, light troops such as these were probably conscripted from shepherds, of which there were many types, who were most likely to be skilled in the use of the sling. While a few may have been issued with helmets and weapons from the temple and palace workshops it is probable that the majority were not so equipped, the numbers available being the limiting factor.

The sling continued to be a popular weapon, together with the military throwstick or boomerang, *gish SHUG*, or *gish ELLAG.A*, in the Akkadian and Ur III Dynasties (when it was called *dal-ush-us*, or *waspum* in Akkadian. Both terms are probably onomatopoeic). These later military slingers were probably identically equipped to other soldiers of the period.



65. SARGON OF AKKAD c. 2330 B.C.

Sargon, or Sharru-kin, appears here as dressed on an early victory stela, wearing a fleecy 'kaunakes' little different from that of Eannatum (fig. 60).

The king's long hair is plaited, the two plaits being brought up around the forehead and held in place by a metal headband. The hair at the back of the head is tied into a bun. This hairstyle is obviously very similar to that represented by the helmet of Meskalamdug (fig. 55) and is a style favoured by high-ranking officials and officers of the Dynasty of Akkad.

On the stela, Sargon is armed with a ceremonial, round-headed mace. Here, however, the king is illustrated with a crescentic axe typical of the period.

The parasol-bearer, who is present for the first time in Mesopotamian art, is dressed almost identically to the infantry of figure 61, and this indicates that most of Sargon's soldiers were similar, differing little from Early Dynastic types.

Sargon of Akkad was the greatest figure of the age. He campaigned in areas far beyond Sumer, and for the first time united the area under one rule. His origins are obscure but were probably not quite as lowly as later sources suggest. The cupbearer of Ur-Zababa, the King of Kish, Sargon survived his master's overthrow by his great rival, the powerful *ENSI* of Umma, Lugal-zagesi — who ruled most of southern Sumer from his capital at Uruk. For several years Sargon appears to have built-up a following, possibly in the new city of Agade, or Akkad, which he seems to have found near Kish while still a servant of Ur-Zababa. In 2316 B.C. Sargon moved against Lugal-zagesi and liberated Kish, whose citizens swore eternal loyalty to Sargon in gratitude. Sargon probably adopted the name we know him by, 'The Legitimate King', and the title 'King of Kish', at this time.

Following the conquest of Sumer, Sargon campaigned in southern Iran against a coalition of four kings led by the king of Awan, a powerful kingdom centered on the southern Zagros mountains, and established his own governors in the conquered territories — most prominently in Elam. Campaigns to the north-west resulted in the subjection of the Syrian states of Tuttul, Mari, Yarmuti and Ebla, and control of the cedar forests and silver mines of the Lebanon. Sargon appears also to have fought an arduous campaign in Anatolia to safeguard Akkadian merchant colonies in Purushkanda (near modern Kayseri), and may even have sailed south to Oman and possibly led an expedition to Crete. What is certain is that all Sargon's campaigns outside Sumer and Akkad had clear economic objectives.

In his old age, after nearly fifty years of rule, Sargon was faced with large-scale revolts in Sumer and the north of Mesopotamia, at one point being besieged in Agade itself. In both cases the rebels failed. Sargon led his troops to battle and scattered them. However, the revolts were an omen of things to come for the great king's successors.

66. AKKADIAN GUARDSMAN IN CEREMONIAL DRESS c. 2316 B.C.

This figure is one of a file of high officials or guardsmen who are shown accompanying Sargon on his stela. They carry large, wide-bladed axes resting on their left shoulders, the top of the curved shaft above each blade having decoration in the form of a snarling lion's mask.

The 'kaunakes' of the guardsmen differs from the king's in having several fleecy tiers and a very wide fringe over the left arm. This form of dress rapidly replaces the older 'kaunakes' in the Akkadian period. When dressed for battle however, Akkadian guardsmen appear as figures 69 and 70 from the time of Manishtushu. Earlier, in Sargon's reign, they probably resembled figure 61, though armed with axes.

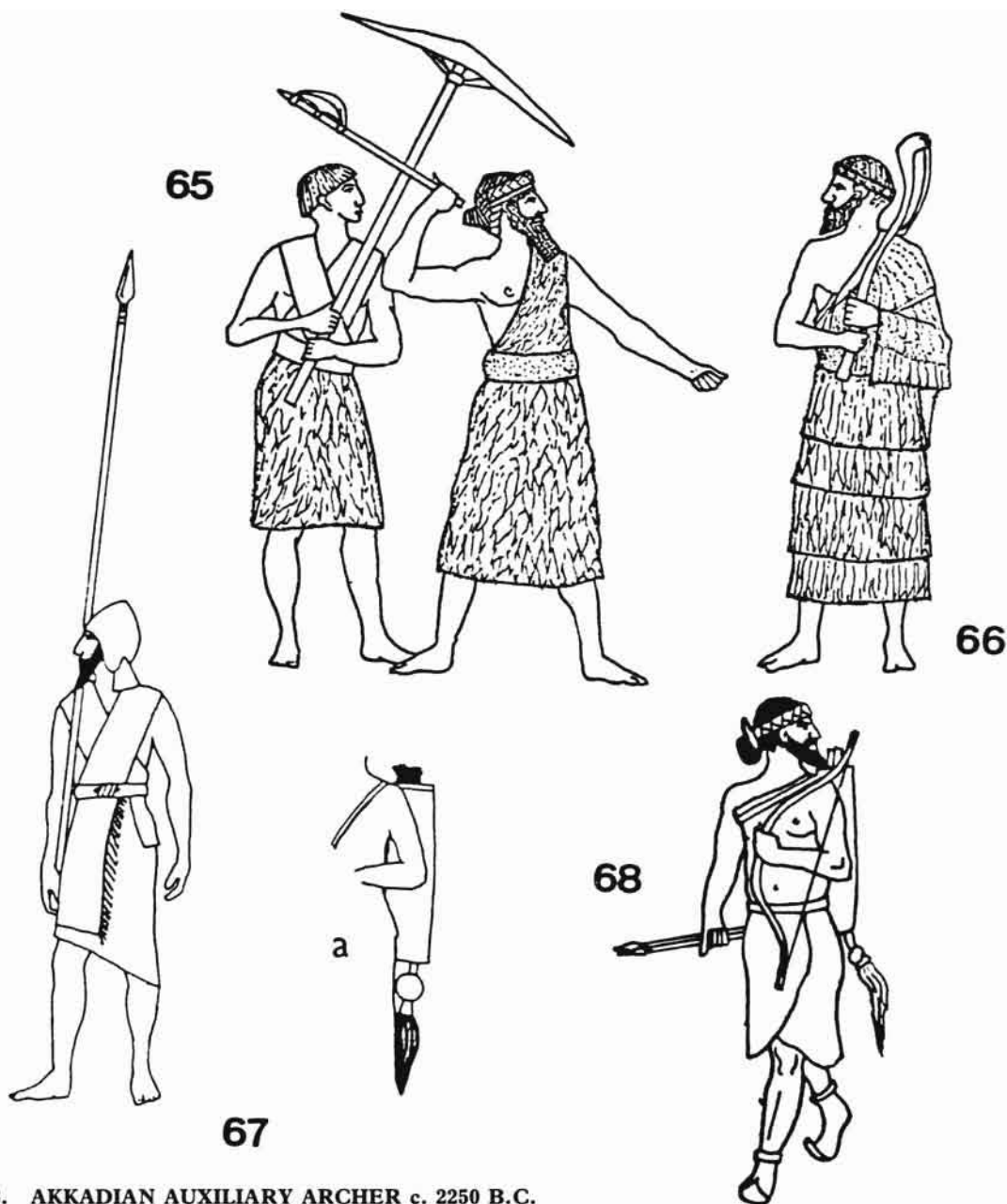
High Akkadian officials, and possibly guardsmen, might wear a round-brimmed flat hat as shown in figure 62.

67. AKKADIAN SOLDIER c. 2270-2218 B.C.

This man is one of several that appear on a fragmentary Akkadian stela which is probably to be dated to the reign of Manishtushu (2269-2255 B.C.).

He wears a fringed, wrap-around kilt with a narrow belt, one end of which hangs loose at the back. He is protected by *tutittu*, and wears a copper helmet with a leather neck-guard or aventail.

67a illustrates the form of quiver carried by archers whose appearance is otherwise identical to figs. 70b and 70c. The tassel or tail attached to the base of the quiver is shown on painted pottery as early as 5000 B.C. and is also depicted on several Early Dynastic cylinder seals.



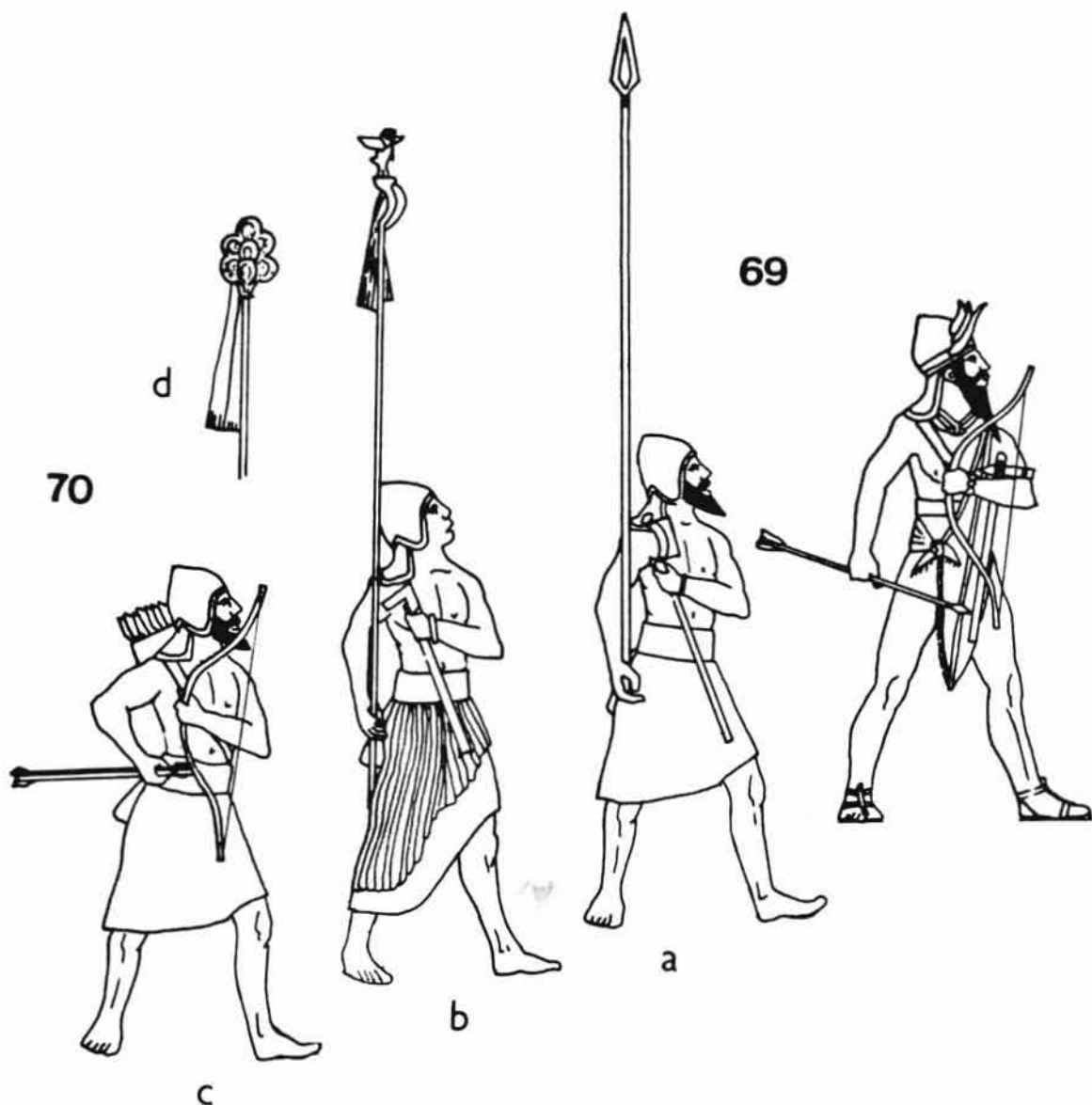
68. AKKADIAN AUXILIARY ARCHER c. 2250 B.C.

Based upon representations on the cylinder-seal of an Akkadian governor, which depict him on a tour of his province escorted by his bodyguard of auxiliary archers.

Although his hair is plaited about his head in Akkadian fashion, his short boots with up-turned toes (which actually make hill-climbing easier because of the toe's springiness) are typical of highland costume throughout the Near East during the period of this book, and mark this man out as an easterner from the Zagros foothills.

He is armed with an Akkadian bow and quiver and wears a simple, wrap-around kilt.

Warriors such as these appear on Mesopotamian terracotta plaques of the Ur III period and seem often to have been used as mercenaries.



69 & 70. NARAM-SUEN AND SOLDIERS c. 2254-2218 B.C.

The source for these figures is the famous and often illustrated 'Victory Stela' of the Akkadian king, Naram-Suen (or Naram-Sin), which celebrated the defeat of Satuni, chief of the Lullubi.

69 is Naram-Suen, depicted at the head of his troops on the stela. He wears a bowl-shaped helmet decorated with a triple row of horns to symbolize and proclaim his divinity (most Akkadian kings after Sargon assumed divine honours in their lifetime). His neck is protected by a wide aventail, probably of leather, attached to the rear rim of the helmet; while about his neck is worn a distinctive, double-stranded necklace.

The king wears a metal belt at the waist and a baldric over his right shoulder, both of which pass beneath a fringed shawl that is carried over the left shoulder and tied at the hip. Otherwise the king appears heroically naked, armed with a single-curve composite bow and a long-handled, chisel-bladed axe.

70a is one of several spearmen that are represented on the stela advancing behind the king. He is armed with a long spear (*GID.DA*) carried, in a manner first apparent in the Early Dynastic period, vertically and resting in the crook of the right arm. The spearhead (*EME*) was generally of poor-quality, wrought copper behind which could be fitted a metal collar (*GU*) weighing 250g. In his left hand he carries a long-handled, wide-bladed, axe.

None of the spearmen on the stela is depicted with a shield, probably because they were too cumbersome to use in the wooded, mountainous, lands of the Lullubi. However, shields are attested in Old Babylonian copies of Akkadian texts where they are described as made of leather, and of a type that 'reached down to the ground'. Clearly such shields (*E.IB.UR.ME*) were very similar to Early Dynastic examples (fig. 61).

70b and d show the two sacred standards depicted on the stela. 70b represents a divine weapon in the form of a *GAMLU* axe surmounted by a scorpion-man or a winged bull. 70d is a standard in the form of a sacred tree.

Both standards are crowned with two groups of streamers or ribbons and are carried by clean-shaven priests, who wear long kilts tied with an extensively fringed waistband. Each is armed with an axe.

70c. The archers are dressed identically to the spearmen, with wrap-around kilts secured with a wide waistband. They are armed with single-curve composite bows, the arrows being carried in a large quiver over the right shoulder.

All the soldiers wear domed copper helmets (*SAGSHU*) which have large integral cheek-pieces, the nape of the neck being protected by a leather aventail.

71. AKKADIAN SOLDIER c. 2270-2218 B.C.

Based on a fragmentary Akkadian stela from Nasriyah, this soldier wears a helmet of plaited leather or reed, to which is attached a long leather aventail. Eblaite soldiers appear to have worn similar helmets.

For protection he wears an early version of *tutittu*, wrapped around the body, but otherwise similar to fig. 62. He has both a long-handled axe, and a dagger (of which only the pommel is visible) thrust through his belt, and appears on the stela presenting a captured dagger to the king.

His long, fringed kilt and distinctive armament may indicate that he is a royal guardsman, like the earlier fig. 66.

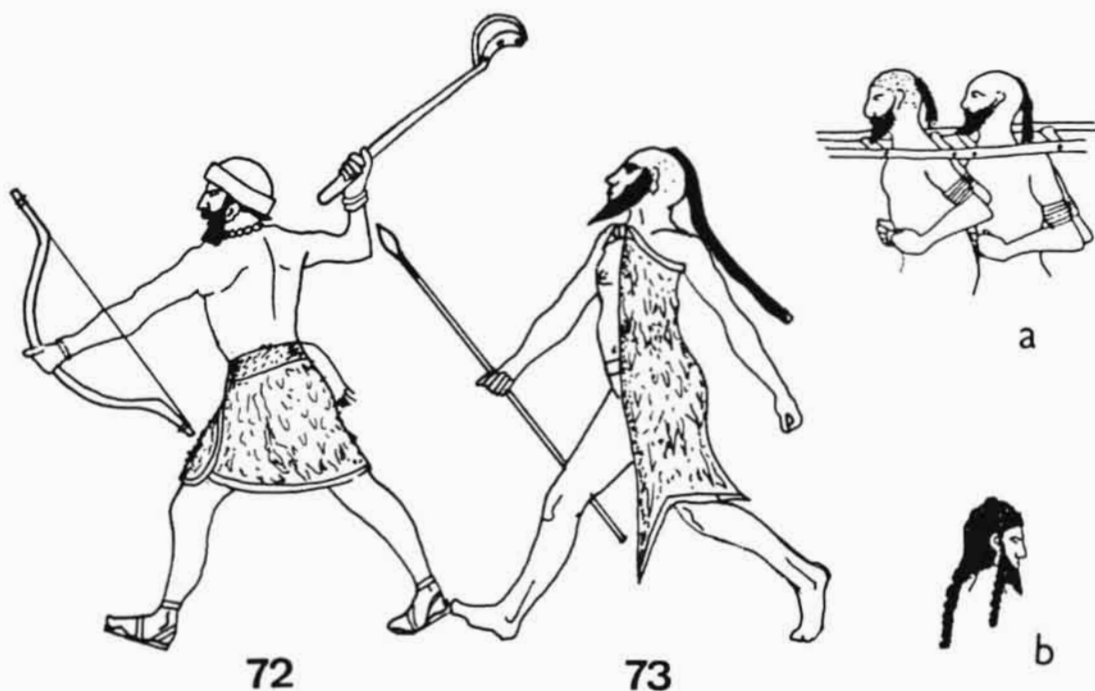
Other soldiers on the stela carry objects which could be reed shields with shoulder straps (71a) though this is uncertain.



72. ANNUBANINI, CHIEF OF THE LULLUBI c. 2200 B.C.

This Lullubi chieftain had himself represented in a rock-carving at Sar-i-pul in the central Zagros region, in a manner reminiscent of Akkadian royal iconography.

He wears a hat or turban over his coiled hair and a short, sheepskin kilt. His weapons are a composite bow and a heavy axe or *GAMLU*, a weapon so effective that it became increasingly associated with the might of divine vengeance.



73. LULLUBI WARRIOR c. 2254-2218 B.C.

This warrior wears the typical garment of a mountaineer; a goatskin tied at the right shoulder, which probably afforded some protection in battle (note, for example, figs. 102, 103 and 167).

The characteristic long pigtail and shaved scalp appear to have been features of several highland peoples, as well as the Elamites, at this time and later.

73a shows two Lullubi captives in an Akkadian neckstock. Foreign male prisoners were usually massacred or transported to form forced-labour camps.

73b with his pigtail and side-lock is probably a Gutian, who, to the Mesopotamian mind, were not distinguishable from the mass of barbarian highlanders.

Early Hurrian warriors, close neighbours of the Lullubi, probably dressed very similarly to figure 73.

Lullubi, Gutians and Hurrians were probably employed as mercenaries and subject troops in large numbers by the Akkadian kings and the later kings of the Third Dynasty of Ur (Shulgi records victories against the Lullubi and numerous northern campaigns in Hurrian territory).

The Lullubi warriors on Naram-Suen's 'Victory Stela' are shown armed with either spears or bows.

74. SHULGI, KING OF UR c. 2094-2047 B.C.

Although this figure is derived from a rock-relief of Shulgi, the second king of the Third Dynasty of Ur, it is in fact representative of Mesopotamian royal dress from the end of the Dynasty of Akkad to the fall of the First Dynasty of Babylon.

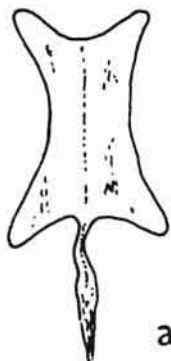
The king wears a triple-stranded belt, the 'badge' of heroes since the Early Dynastic period, and carries an axe and composite bow. Over his plaited and coiled hair he wears a turban or hat. Unlike the Akkadian kings his long beard is cut square, though his necklace seems to have been closely worked after Akkadian originals.

Soldiers of the Neo-Sumerian empire probably differed very little from later Akkadians in dress (fig. 70). A Sumerian literary text, which imagines Ur-Nammu, the first king of the Third Dynasty of Ur, arriving in the Netherworld (following his death in battle), lists two complete sets of contemporary military equipment. The first set is of a mace, a powerful bow (*BAN.GAL*), a quiver, arrows, knife, and a dyed leather waterbottle; the second comprises a long spear (*GID.DA*), a leather shield 'reaching down to the ground' (*E.IB.UR.LU.US.SA*) and a battle-axe. The former set is clearly that of a fully equipped archer, the latter that of a spearman.

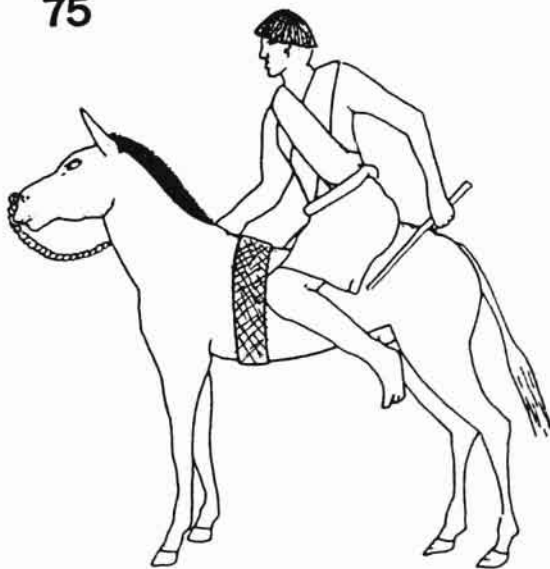
By the end of the Neo-Sumerian Empire the large Sumerian shield seems to have fallen out of use in favour of a smaller more manageable shield of Amorite origin. Such a shield, made from a single animal skin stretched over two crossed formers, is shown on a cylinder-seal of Silulu, a king of Ashur of c. 2000 B.C., and illustrated by 74a. Other than replacing figure 74's bow with the shield, Silulu appears dressed identically to the earlier king of Ur.



74



75



75. MOUNTED MESSENGER c. 2300-1600 B.C.

Figures, essentially similar to that illustrated, depicting the riding of equids (hemiones, asses and, eventually, horses) occur frequently in early second millennium B.C. art throughout the Near East.

Throughout this period riders adopted the so-called 'donkey-seat', necessary because of the slight, sharp withers of asses and hemiones which, for reasons of comfort and security of seat, forced the rider to sit on the rump of the animal.

The donkey-seat continued in use for horse riding, which, though at first rare (and considered rather undignified — a chariot, or mule as mount seems to have been preferred) became increasingly common after about 1700 B.C., falling out of use in the late ninth century B.C. (cf. fig. 121). That it took over 800 years to appreciate the unsuitability of the donkey-seat for use with the horse, which has more ample withers for a comfortable forward seat, and yet has kidneys vulnerable to a rear-mounted rider's bouncing when moving at speed, stresses the total lack of any desire at that time to improve mounted warfare beyond the capabilities of the chariot.

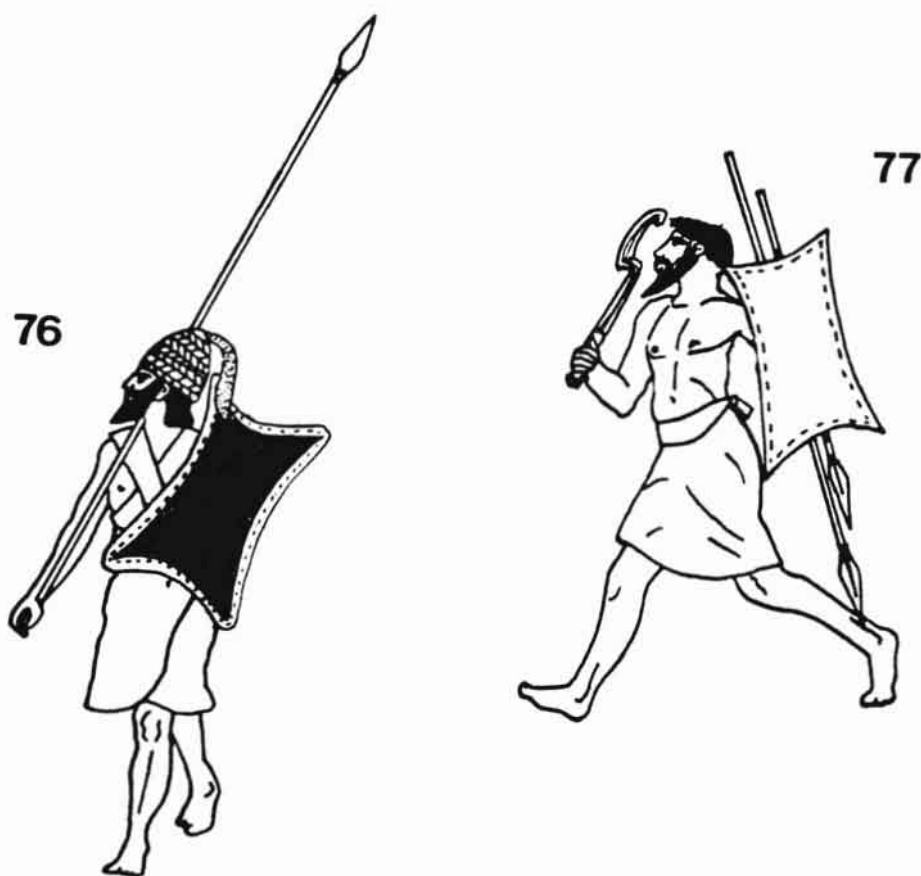
This rider, derived from a Mesopotamian terracotta plaque of the Third Dynasty of Ur, uses a plaited leather belly-band on his mount to help keep his seat, either by holding onto it, or by pushing his knees between it and the animal's flanks. A nose-ring and rope serve to regulate the animal's speed, the rider's stick being used for directional control.

Only rarely are riders shown carrying weapons at this date, and textual sources make it clear that they functioned in military contexts only as scouts or messengers.

76 & 77. INFANTRYMEN, FIRST DYNASTY OF ISIN c. 2017-1794 B.C.

76 is a reconstruction of the appearance of spearmen of the late Ur III and early Isin Dynasties, based on representational, textual and archaeological sources.

He wears a plaited cord, leather, or reed helmet (described in later texts of the Old Babylonian period as: *kubisu sha ashlim*, 'helmets of rope'), similar to that worn by figure 71. This type of helmet is shown being worn by mounted messengers or officers of the Isin Dynasty and probably indicates a shortage of bronze in Mesopotamia during this unsettled period. The helmet's crest is possibly formed by leaving the loose ends of the plaited material uncut. The helmet and crest were probably dyed either green or red, though it is possible that they were left a natural colour — yellowish-brown in the case of goat leather.



This soldier is equipped with the type of Amorite shield adopted in Mesopotamia at this time. Texts from Isin, dealing with the manufacture of leather goods in palace workshops, use an Akkadian loanword, *kababum*, to describe shields of this kind. The materials used to make them included goat and sheep leather, often described as 'hairy', so if undyed the finished product would most probably be black, or mottled black and white in colour. The use of oxhides and 'wild' oxhides for the construction of some shields possibly suggests that the traditional large Sumerian shield was still made in small numbers.

The man's spear is of the long-shafted type which was probably known as *shukurgallum*, or 'big needle', known since the Early Dynastic period but now gradually going out of use.

Texts from Isin also mention the production of leather bags for bows, and reed quivers for arrows.

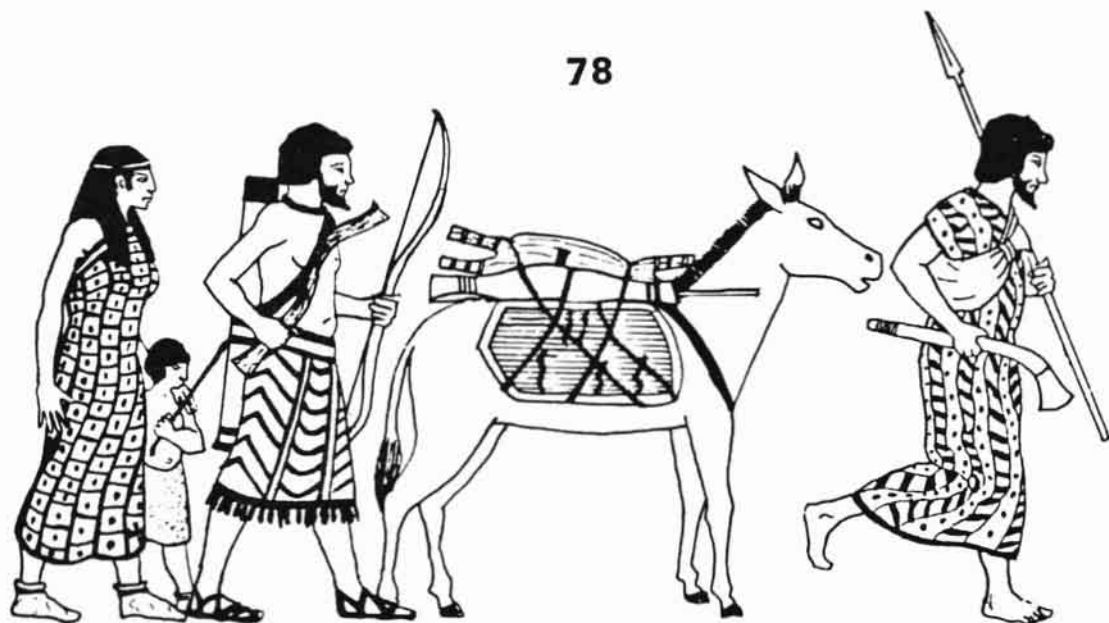
77 is a light-armed soldier and is possibly an Amorite auxiliary.

He carries an Amorite shield and is armed with two javelins and a bronze sickle-sword. The sickle-sword was a favourite, though expensive, weapon used widely in the Near East following its invention during the third millennium B.C. By the Ur III period the weapon's blade was in general longer and deeper in relation to the shaft, producing an extremely efficient, balanced, slashing sword.

78. AAMU OR MARTU BEDOUIN

The nomadic peoples who lived in southern Palestine, Sinai, and the eastern desert of Egypt were known to the Egyptians by such vague terms as 'Sand-Dwellers', *Mentju* ('wild-ones'), *Iwntiw* ('pillar-folk', a reference to the stones used to mark their routes), and *Aamu* or 'throw-stick people'.

These people are Aamu as depicted on the walls of the Middle Kingdom tomb of Khnumhotep at Beni-Hasan. They are shown visiting the nomarch with their families in order to trade. The leading warrior here is dressed in a characteristic 'coat of many colours', a highly decorated, patterned, sleeveless woollen garment. The second warrior wears a patterned, wrap-around kilt instead. Colours used were red, blue and white. The people were light-skinned with black wavy hair and thin, pointed beards. Over his shoulder the leading warrior carries that necessity of desert life, a waterskin.



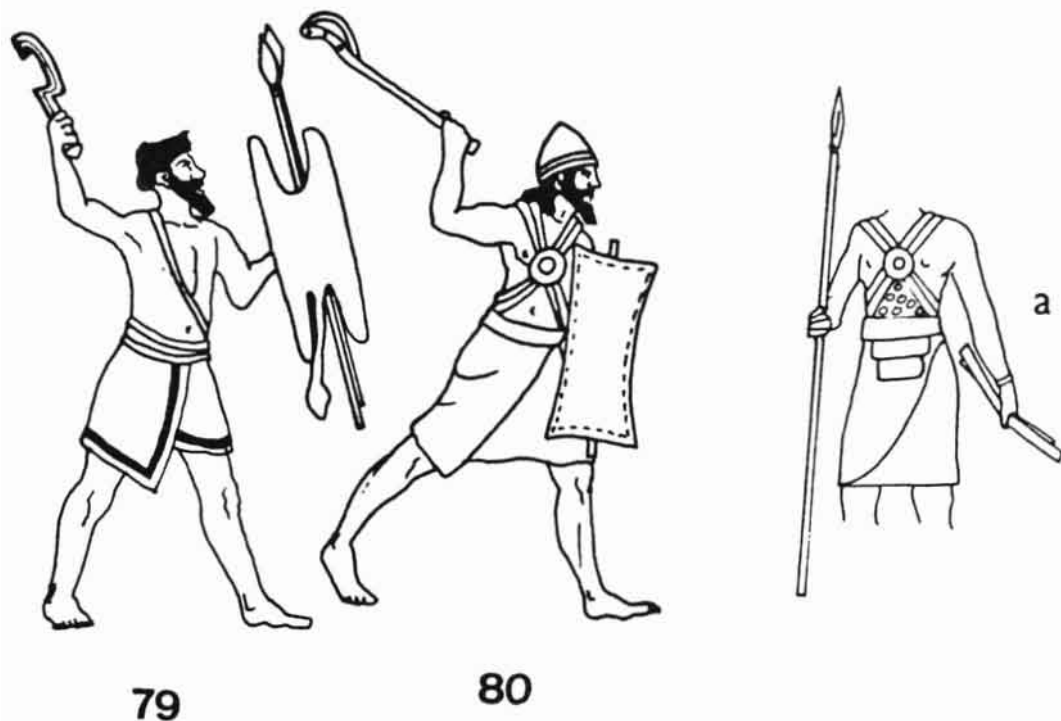
Weapons included short, bronze-headed spears, axes, daggers, slings, throwsticks, and the stave, or simple bow. Arrows were carried in tubular leather quivers.

On its saddle of plaited sticks the ass is loaded with a simple leather bellows, (used for the smelting of bronze — this particular group are obviously smiths or 'tinkers'), a waterskin, and a pair of javelins.

These figures are also representative of the nomadic tribesmen who migrated in large numbers from the Syrian steppe and into the fertile crescent during the late second millennium B.C. (20th-18th centuries B.C.)

These western nomads were called *MARTU*, or *AMURRIM*, 'westerners', by the Mesopotamians, though they are generally known now by the Biblical 'Amorites'.

Hated and despised by the settled Mesopotamians, the *MARTU* were nevertheless employed as agricultural labourers and mercenaries from the late Early Dynastic period. By the Third Dynasty of Ur, however, Amorite raiding and plundering had become so serious that a great wall, named: *Muriq-Tidnum*, 'which keeps out the Tidnum' (an Amorite tribal group), was constructed in the reign of Shu-Suen. It was 270 km. long, and crossed over both the Tigris and the Euphrates rivers, on the desert fringe of the empire. The wall was finally penetrated in the reign of Ib-bi-Sin, and the widespread Amorite incursions contributed to the collapse of the kingdom of Ur.



79, 80 & 81. INFANTRY: FIRST DYNASTY OF BABYLON c. 1850-1595 B.C.

These are based on the numerous representations of soldiers and military scenes on terracottas of the Old Babylonian period. As such they illustrate the soldiers of Babylon, Eshnunna, Larsa, and Ashur.

79 is based on a terracotta plaque from Ur, and resembles the earlier figure 77, suggesting that the latter figure is indeed an Amorite. He wears a simple wrap-around kilt with a triple-stranded belt. The belt passing over the right shoulder is probably a baldric for his sickle-sword.

His shield, of Amorite type, features two additional, vertical, supporting struts between the crossed formers of the typical 'X' framework. This produces a shield with straight, rather than concave, sides. The animal's tail has been retained on the hide for decorative effect.

Two short javelins are carried behind the shield.

80 is derived from a terracotta discovered at Kish and shows a well-equipped soldier of Hammurapi's kingdom, a *sabum kibitum*.

His head is protected by a conical helmet, which could either be of bronze, or plaited cord (cf. fig. 76). On his chest he wears a new form of *tutittu* which exhibits two sets of double straps supporting, and subordinate in protective value to, a round, bronze, breastplate or *irtum*.

An early Old Babylonian text provides the information that 32 shields, *kababu*, could be made from 8 oxhides, and 2 small shields made from the left-overs. Clearly the larger shields are of the Amorite type, as carried by this figure, though the small shields would be less than half this size, and were probably carried by the light troops like figure 79. Leather items in Babylonia had to be regularly rubbed with vegetable oil to prevent their drying and cracking in the intense heat of summer, and administrative texts record the issue of oil to soldiers 'for rubbing shields'. This practice is also mentioned in the Bible, where Saul's leather shield is left 'unanointed' with oil.

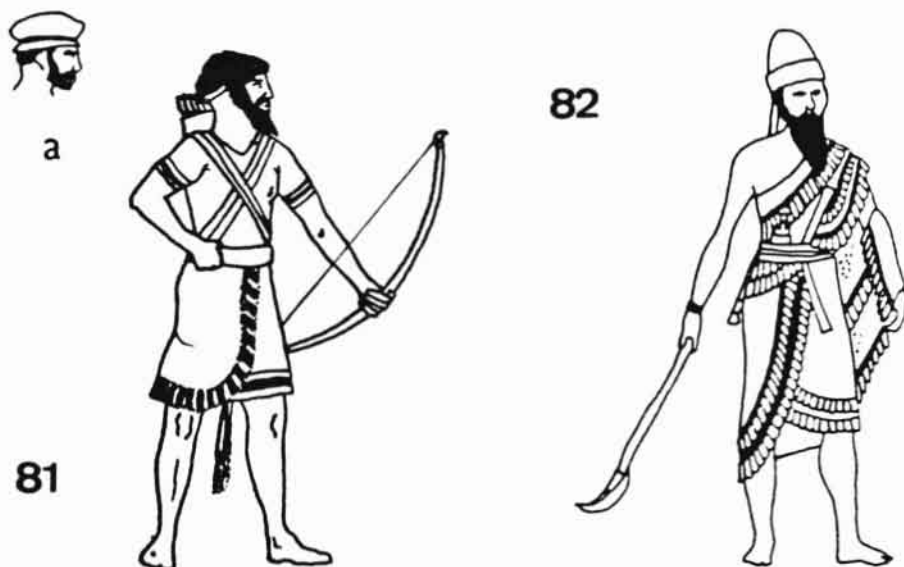
He is armed with a heavy, long-handled axe, or *GAMLU*, which was the usual weapon of the fully-equipped *ba'irum*, or *sabum kibitum*. Other axe types attested at Mari were the *pashu*, *agasalakhum*, and the *khassinnum* — which had a bronze blade weighing 650g. The latter weapon occurs in pre-Sargonic contexts as the *hazzinnu* and was clearly a common weapon, and is possibly to be identified with the chisel-bladed type of socketed-axe.

80a illustrates several different types of equipment and weaponry, of which either some, or all, could be carried by soldiers like figure 80. These include large military throwsticks, *tilpanum* or *shub*, short thrusting-spears or javelins, and abdomen protectors, *kurbisi ush*, of woven reed which increased the coverage of the *tutittu*.

81 is a well-equipped archer. He is armed with a simple, Amorite, bow or *qashtum*, and wears a tubular leather or bronze quiver slung over his shoulder on two straps. The other pair of straps form a simple *tutittu* and probably supports a side-arm, either a dagger or a sickle-sword.

He is dressed in an elaborate, wrap-around kilt, which is partly edged with a multi-coloured, woollen trim that becomes very popular from this time on. A leather or metal belt is worn about the waist, and a decorated linen shirt. The man's hair is cut short and secured at the back with a metal hairband.

81a shows the headgear common at Mari. Obviously derived from the typical flat hat of the Early Dynastic and Akkadian periods the hat was made of soft, white or brown material and secured on the head with a cord above the brow.



82. A KING OF MARI IN CEREMONIAL DRESS c. 1760 B.C.

This figure is taken from wall-paintings decorating the palace of King Zimri-Lim at Mari. Zimri-Lim's palace was renowned for its splendour and many travelled to Mari just to see it. Unfortunately for Zimri-Lim, one of these sightseers was Shamshi-Adad, king of Ashur, and he rather overstayed his welcome! The palace was eventually burnt to the ground by Hammurapi, King of Babylon.

Although the king wears constricting, ceremonial robes he appears armed, with a dagger and a throwstick thrust through his belt. In battle, the king would probably ride in a platform-car or an early chariot.

The robe could be of green, brown or white cloth, with green, brown, red and white multi-coloured trim. The double belt has a narrower, central strap tied at the back, the loose end of which (clashed in a silver finial) may be seen at the right hip.

On his head the king wears a tall, white crown or hat which is to be compared with the lower crowns or turbans of Mesopotamian kings (fig. 74). A long ribbon hangs from the brim of the crown down the king's back. Hammurapi, on his monuments, appears wearing long, rather plain, ceremonial robes, but is otherwise very similar to figure 74, who is actually dressed for war. Shamshi-Adad I, on a damaged figured relief, wears very similar robes to Zimri-Lim, though he wields a chisel-bladed axe.

83. OLD BABYLONIAN PERIOD INFANTRY: MARI c. 1760 B.C.

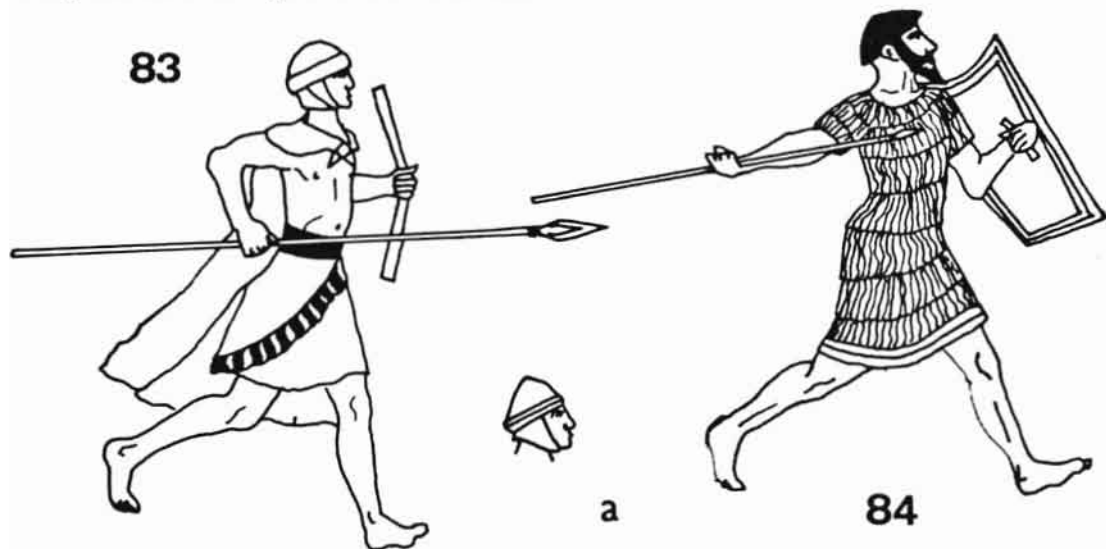
This warrior is also derived from wall-paintings discovered at the palace of Zimri-Lim.

His head is protected by a white, padded, turban with a double neckguard, while a long yellow cape, possibly of goat leather, protects his body. The short kilt is white with multi-coloured blue trim and a black sash or belt. Similar soldiers appear wearing short-sleeved, 'v'-necked tunics similar to figure 81.

He is armed with a socketed bronze-headed spear, known as *shinum* (a name attested only at Mari) or *shukkurum*. These spears are depicted as slightly taller than a standing man, the much longer *shukkurum* is only rarely mentioned, and falls out of use completely by the end of this period. His other weapon is a throwstick, *tilpanum*. A governor of Terqa sent 30 of these weapons as a gift to the palace.

Shields possibly occur at Mari in the written record as *sinnatu*, though they are nowhere illustrated. Goliath's shield is referred to in the Bible using a Hebrew loan-word derived from *sinnatu*. Arrows are mentioned in large numbers in Mari texts, Shamshi-Adad I requested 10,000 to be made at Mari's palace workshops. The sling, *waspum*, also occurs, a tablet from Shemshara lists 500 slings.

83a shows an alternative type of helmet worn at Mari. This version appears to have a bronze bowl with wide leather cheekpieces and a double padded-leather browband.



84. OLD BABYLONIAN PERIOD INFANTRY: EBLA c. 1900 B.C.

Several warriors, dressed identically to this, appear on a stone ritual libation trough discovered at Tell Mardikh, the ancient city of Ebla. Following the sack of Ebla by Naram-Suen, Ebla dwindled in importance (though earlier, c. 2500 B.C., both Mari and Ashur seem to have been subject to the kings of Ebla) only to be revived as the capital of an Amorite kingdom in the early second millennium B.C. This Amorite city was destroyed in c. 1600 B.C. by either Hattusilis I, or Mursilis I, during a Syrian campaign of the Hittite kings.

This warrior carries an Amorite shield and is armed with a short spear or javelin, although other warriors on the trough are armed with javelins and throwsticks, and do not carry shields.

He wears a knee-length, fleecy, woollen garment, which was probably natural off-white in colour.

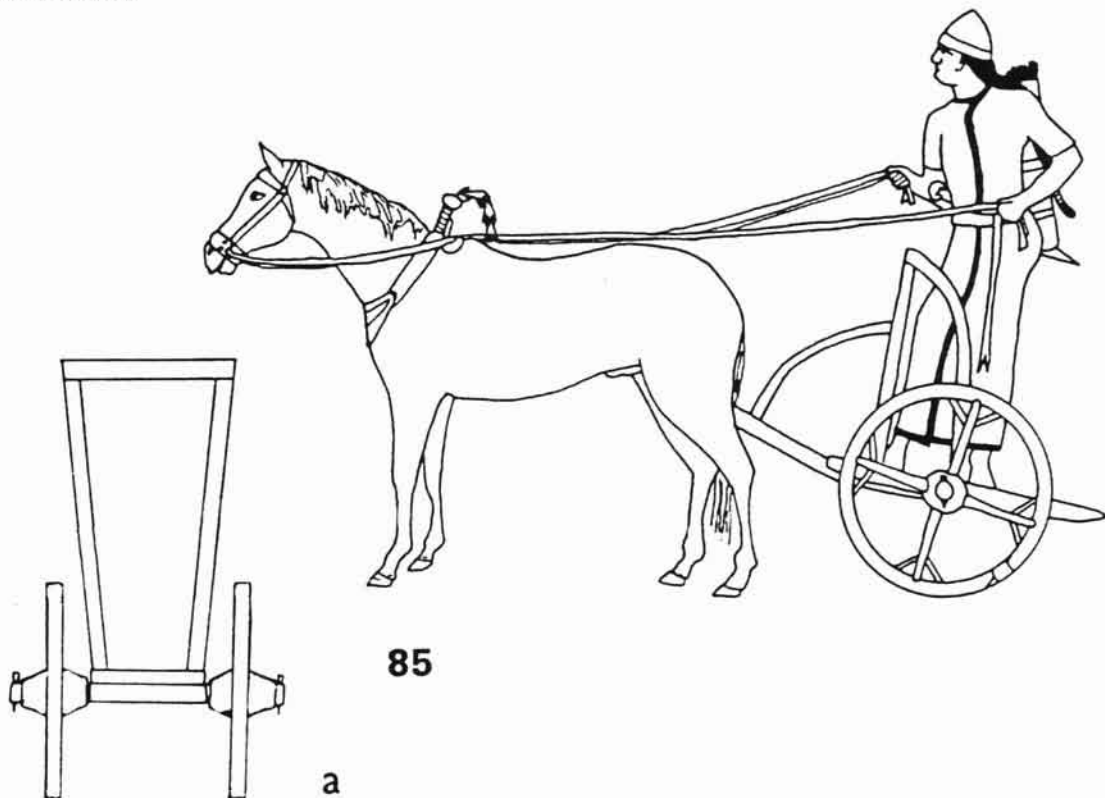
Like figures 77 and 78 this man is representative of the mass of early Amorite warriors.

85. EARLY CHARIOTRY c. 1800-1600 B.C.

This is based on representations of a horse-drawn chariot from a Syrian cylinder-seal of the 18th-17th centuries B.C.

The warrior's long pigtail suggests that he is a north Syrian, possibly even a Hittite. He wears a long, short-sleeved coat with decorated hem and edges reminiscent of the later Syrian mail coats which also overlapped and fastened at the front (cf. fig. 115). His waist belt, which supports a tubular bronze quiver, ties at the front, the loose end hanging down to the knee. A short sword is carried through the waistbelt, and a bronze helmet protects the warrior's head.

A second crewman, identically dressed and equipped with a quiver, is depicted on the seal climbing into the back of the chariot.



The true chariot, a light vehicle with two, spoked, wheels and drawn by two or more horses, appears to have been developed in the Near East from the earlier platform-car during the early second millennium B.C. It does not seem to have been introduced from outside the area, and although various Indo-European and other, non-Semitic speaking, peoples came to be strongly associated with it, they did not invent it.

Platform-cars are shown with cross-bar wheels, disc wheels with central cut-outs, late in the third millennium, and spoked wheels (a logical development to produce yet lighter and larger wheels) appear soon after in the early second millennium B.C. Though four-spoked wheels are the commonest types, six- and eight-spoked wheels occur quite frequently (ten- to twenty-eight-spoked wheels are attested in Transcaucasia) at this time. Early spoked wheels often have small reinforcing struts where the spoke enters the felloe in order to evenly distribute the pressure at this point.

85a shows the front of a modified platform car shown on a terracotta from Uruk of the Old Babylonian period. This vehicle, shown in typical, distorted perspective, has four-spoked wheels identical to those of 85, and the same double-curved draught-pole. Its single crewman is similar to the rider of figure 75. Unlike earlier platform cars, the front frame has no backing.

Early chariots illustrated in Mesopotamia, Syria and Anatolia seem to show that the wheels revolved on centrally-placed axles. Though this impression may only be the result of the rather crude representations of early chariots extant; a central axle on a fast-moving vehicle would result in the cab rocking backwards and forwards, especially if the crew tried to move about in it. Unless we accept that early chariots were unbalanced, rather slow vehicles, it seems probable that the axle was fixed at the rear of the cab.

A slightly earlier, Old Babylonian, representation of a chariot shows a type which is even closer in form to the platform-car, even to the extent of a rear seat for the single, noble, crewman. However, both this vehicle, and figure 85, exhibit a significant change in harnessing practice. Instead of the inefficient halters of figure 56, which probably had a choking effect on the draught-team when moving at speed, a 'yoke-saddle' was used so that the main effort of traction was taken on the horse's shoulders, across which the yoke-saddle lay.

In shape the yoke-saddle resembled an inverted 'Y', the top of which was formed by a calcite reel on later Egyptian examples. The finial this topped, and the legs of the saddle, were formed from leather-covered wood. Near the end of each leg was a hole through which were taken the ends of the neckstrap which kept the yoke-saddle in place, the legs lying across the horse's shoulders. Some representations seem to indicate that a backing element was also present (see figure 119b). In the early second millennium the finial of each yoke-saddle was decorated with horsehair or woollen tufts.

The yokes at this time appear to have been formed from a simple, gently curved, pole. Since the chariot floor was deliberately kept low to facilitate mounting and to keep the centre of gravity of the vehicle as low as possible, the draught pole comprised a shallow 'S' shape, running beneath the cab floor for extra strength.

Several designs of chariot cab are apparent in this early period; a type of open, square, framework is shown on Anatolian seal impressions. Syrian representations show a similar, solid-sided cab, as well as the advanced, heat-bent framework of 85 that became standard until fifteenth century B.C. (cf. fig. 86a). The curving element joining the cab is a wooden cab-front and draught-pole support.

The horse, possibly known in Mesopotamia from the Early Dynastic period under the name *ANSHE.ZI.ZI* or *ANSHE.SHUL.GI*, is used increasingly during the second millennium as a draught animal. At that time the horse was called *ANSHE.KUR.RU*, or 'foreign ass' in Sumerian; in Akkadian the horse was called *sisum*. The chariot itself was still called *GIGIR*.

Horse remains of the 17th/16th centuries B.C. from Bogazkoy (the site of the ancient Hittite capital of Hattusas), and Buhen in Egypt, indicate that the average height, measured at the withers, was 1.40-1.50m., in modern terms about the height of a big pony.

South-eastern Anatolia was a noted source for horses during this period.

86. HYKSOS WARRIORS, 17TH AND 16TH CENTURIES B.C.

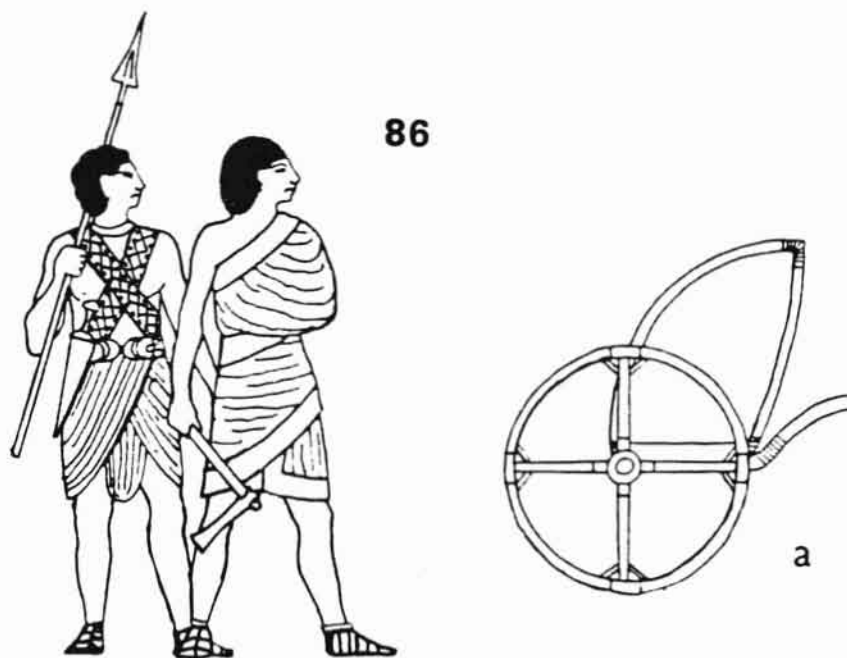
There is hardly any evidence for the appearance of real Hyksos warriors (much later Canaanite and Mitannian figures often being mis-interpreted as Hyksos). Graves of foreign soldiers excavated at Katana-Qantir in the eastern Nile Delta, the probable site of Avaris, produced weapons of Canaanite type. The wrap-around garment worn by the right-hand figure is derived from Hyksos engraved scarabs. It is a short and simple variant of a typical Levantine garb. The left arm has been tucked inside. Weapons consisted of short spears, composite bows, daggers and small battle-axes. Daggers differed from the older Egyptian types in having a long handle instead of a ball-like grip. The normal axe type of the New Kingdom (shown in 13) was introduced during the Hyksos period along with the *khopesh*. The axe shown here, however, has a longer and narrower blade.

These figures represent the foreign retainers of the Hyksos chieftains. The infantry would be dressed and equipped like this while the charioteers would probably be better equipped. Scale corslets perhaps similar to that in 15, could not be ruled out. A large proportion of Hyksos forces within Egypt would be provided by Egyptian provincial troops supplied by native vassals, as indicated by the account of Kamose.

86a shows the probable appearance of a Hyksos chariot cab. The frame is taken from an example found in Egypt and now in the Florence Museum. This is the earliest example of an Egyptian chariot extant, and must be close to, if not identical with, the Hyksos originals.

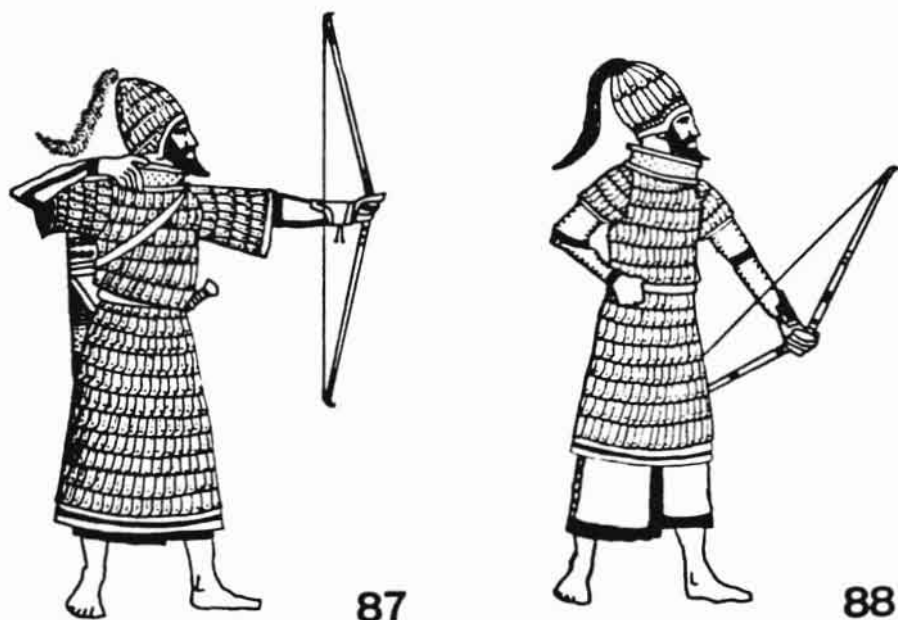
The simple four-spoked wheels are derived from representations on contemporary Syrian cylinder-seals (the Florence chariot's wheels lack the reinforcing struts at the junction between spoke and felloe).

Identical light chariots appear on seal impressions from Nuzi of the same date.



87, 88, 89, 90, 91 & 92. HURRI-MITANNIAN CHARIOTEERS, 15TH CENTURY B.C.

These figures are derived from Egyptian representations of Hurri-Mitannian warriors and equipment, and from detailed descriptions of armour types found in the textual sources of the Mitannian vassal-kingdom of Arrapha. The appearance of Kassite, Assyrian, Elamite, Canaanite, and, to a lesser extent, Egyptian charioteers would be very similar as they all used forms of armour of Hurrian origin.



87 is an elite charioteer wearing the exceptionally complete and heavy armour known at Nuzi as the 'armour of Hanigalbat' (Hanigalbat was the name used for the kingdom of Mitanni in Mesopotamia).

Scale and lamellar armour appears to have been a Hurrian invention of about the 17th century B.C. Certainly all the terms used for armour in the Near East were derived from the Hurrian *sharyani*, or 'coat of mail'. This appears in Akkadian as *sariam*, as *saryanni* in Hittite, *shiryon* in Hebrew and Arabic, and as *tiryana* in Ugaritic and Egyptian. Therefore, although the chariot itself was not of Hurri-Mitannian origin, one may say that the 'chariot-system', the combination of vehicle with a heavily-armoured warrior-class, was. This revolutionary concept enabled the Hurri-Mitanni to establish a large and powerful kingdom in northern Mesopotamia and Syria in the 16th century B.C.

This man's armour, as described in the Nuzi texts, comprises 500 large bronze scales for the body, 500 smaller bronze scales for the long sleeves, *akhu*, protecting the arms, and 200 small bronze scales for the helmet or *gurpisu*. A complete armour of this type weighed over 24 kg. It is clear that they could be made of scale, sewn on a leather base, or of true, interlaced, lamellae.

Individual armour plates were called *kursimtu*, after the Akkadian for a snake, *kursindu*, an analogy no doubt suggested by the latter's scales. The painting and tinning of alternate bands of armour scales at this time may even have been suggested by the highly patterned skins of wild snakes.

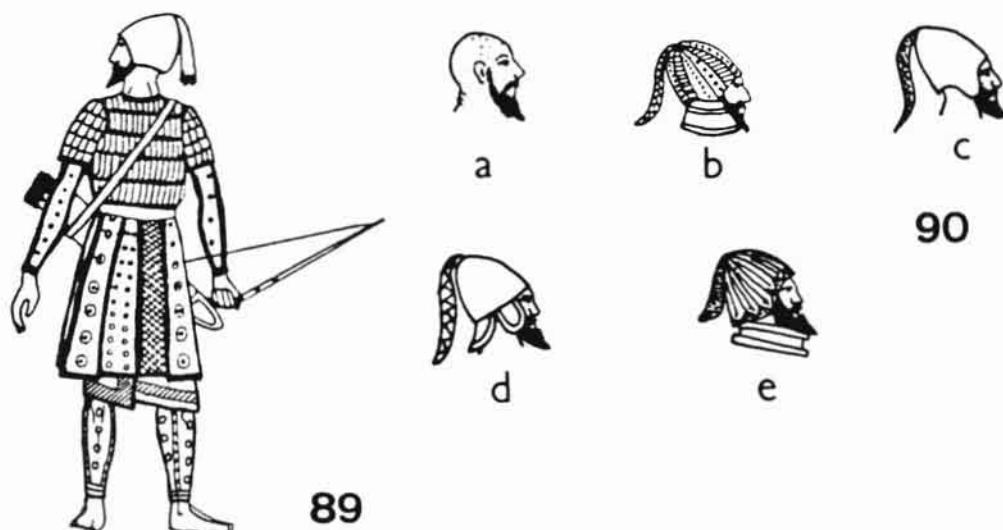
The warrior's neck is protected by a high bronze *tikku*, or collar, a typical feature of the suits of armour of this period (cf. figs. 15 and 197).

He carries a composite bow and a highly-decorated leather quiver identical to those of figure 15, which are probably of Mitannian origin. His wrist is protected from the chafing of the bowstring by a leather wristguard or bracer.

88. This man is shown in the type of armour known as the 'armour of Arrapha'. Suits of this type were less complete than that of 87, comprising 420 scales or lamellae for the body, only 130 for the sleeves, and 170 for the helmet. The total weight of a set of armour such as this was about 22 kg. In some cases the mail coat could be slightly longer.

Like figure 87, the great weight of the armour is supported at the waist by a leather belt.

Beneath their armour, both 87 and 88 wear a long sleeved garment (cf. fig. 98) decorated and edged with coloured trim.



89 shows the variety of armour worn by the majority of Hurri-Mitannian *mariyanna*, or militia-charioteers as opposed to *mariyanna* of the royal, or noble, households.

He wears a short lamellar or scale tunic with short sleeves of leather lamellae. Suits of armour, being of course individually made by specialist craftsmen, varied considerably in materials and overall design. They could be sleeveless, or without a back, with or without a collar; of leather or bronze scales or lamellae, of leather with sleeves of bronze, or even leather with a bronze back. This man has large *kalku*, pteruges, or flaps suspended from the waist belt to protect the lower body. *Kalku* could be used to cover the front or back only or both.

Under a shorter robe than 87's or 88's this man wears close-fitting trousers.

At Nuzi, all armour was issued in sets from the palace arsenal and was made in the palace workshops there. After use the armour was returned for store if not needed, though most men seem to have retained their issues of armour, storing it ready for use at their homes. Each warrior seems to have been obliged to keep at least one full quiver of arrows in his house, ready for instant use. Armour broken or lost in battle was made up from the palace stocks.

87 and 92 wear the type of long dirk or *patru* commonly issued to charioteers. One found at Nuzi had a decorative iron grip. 'Great swords' were much less common.

Weapons were also of palace issue. Old or warped bows are described as being changed for new ones at the palace. Some bows had bronze 'arms'. Great quantities of arrows were stored at the palace for use in emergencies. Batches of 20,000 are mentioned in texts from Nuzi.

90 illustrates the great variety of helmets current in the Near East during the second millennium B.C. *Mariyanna* usually seem to have shaved their heads in order to wear the tight-fitting helmets, as shown by 90a. This probably also made the wearing of bronze helmets more tolerable in the heat of summer.

90b is a *gurpisu mashki*, illustrated on the decorative covering of a chariot of Tuthmosis IV, and described in the Nuzi texts. Leather helmets were only infrequently worn by charioteers but were probably the standard headgear of the infantry. Seven goatskins were needed to make three such helmets, the hides being cut into several triangular strips which were laced together at the edges, alternate strips seem to have been dyed different colours, in three or more layers. This particular helmet has a crest of plaited leather. Crested helmets were described as *tegiptu* or *suppuru*.

90c is a simple, high-crowned, bronze helmet or *gurpisu siparri*, by far the commonest type of helmet used throughout the Near East by charioteers (cf. figs. 15, 89-91). Helmets of this type are frequently illustrated in Egyptian sources as tribute from Canaan, Mitanni and Karduniash (Babylonia). Typically, these helmets have textile crests dyed red or blue.

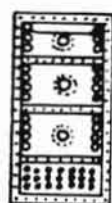
90d is a bronze helmet with a plaited leather crest and separate bronze cheek-pieces and aventail, as described in a Nuzi text, issued to a charioteer together with a suit of bronze-sleeved leather armour. It is almost identical to the helmet worn by Hittite guardsmen (cf. fig. 107).

90e is a simple *gurpisu siparri kursimetu*, or 'bronze scale helmet', of which 87 and 88 wear more elaborate examples, probably called 'great helmets'. These helmets were always issued in conjunction with the complete suits of mail of the household charioteers or royal *maryanna*. The simpler versions consisted of less than 20 very long, curved scales, while 'great helmets' had from 140-200 scales. Both types were based on a woollen, felted liner weighing 0.75kg. The total weights of such helmets varied from 2.72-3.56kg.

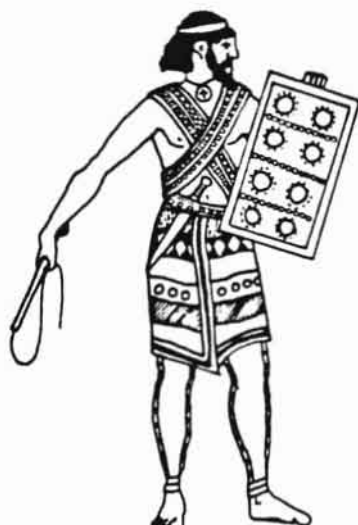
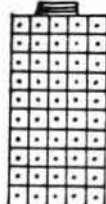
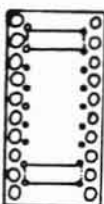
Though expensive and exceedingly complex in construction, scale helmets of this type would offer much greater protection against blows and missiles than the leather or sheet bronze examples.



91



a



92

91 and 92 are chariot-drivers. Texts from Nuzi make it clear that both crewmen of a chariot were issued with suits of armour offering the same levels of protection, though chariot-drivers were in addition provided with shields, *aritu*.

91 wears a medium-length bronze corslet with the usual *zukhatu*, or belt. His helmet is of a tall, bronze variety illustrated in Egyptian sources as having a blue-painted reinforcing rib on the crown to which is attached a red textile or horsehair crest.

In his right hand he carries a whip or *ishtukhkh*, the top of which is decorated with a round ball of lapis lazuli.

92 is taken from the gold, decorative chariot cab of Tuthmosis IV, on which are scenes of the Pharaoh putting to flight Canaanite and Syrian chariots. Only a few of the warriors wear coats of mail, though several wear helmets, indicating that Mitanni's western vassals could not always match the generally high standards of equipment prevalent further east.

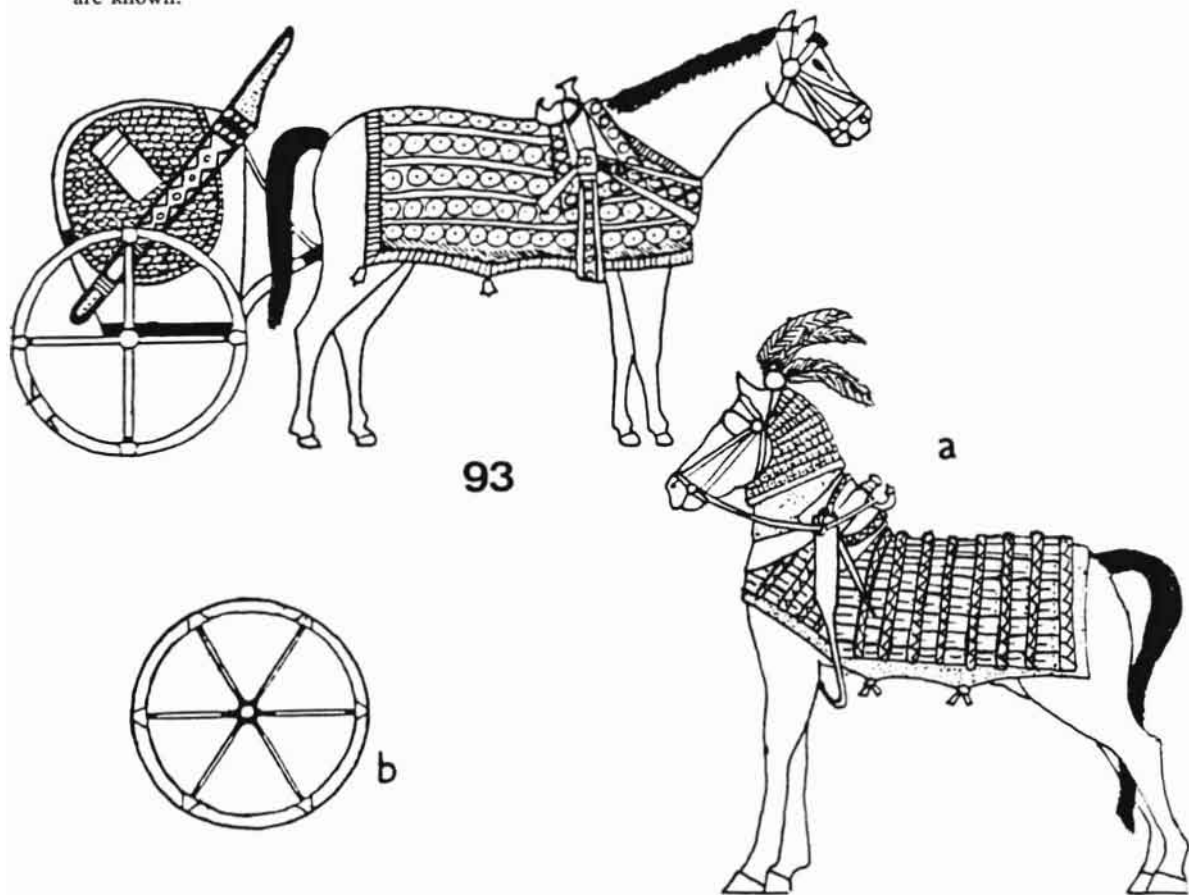
This driver has only a pair of *tutiitu*, known in Nuzi as *tutiwa*, though these are covered with numerous bronze discs. Nuzian texts describe as *tarkumazi* the set of armour issued to the household charioteers of the kingdom of Arrapha. This comprised a coat of mail with sleeves over which were worn both *kalku* and *tutiwa*, together with a collar, dirk, and helmet. These select warriors would look like figure 88, though also having 89's *kalku* and this figure's *tutiwa*. Other texts suggest that *tutiwa* were frequently worn over other armours for added protection.

This man wears a highly decorated kilt over trousers. Around his neck he wears a common ornament, a metal disc decorated with a cross, sometimes described as a 'Kassite Cross'.

91a shows types of shield (*aritu*) used by charioteers.

93. HURRI-MITANNIAN CHARIOT

The chariot, or *narkabta*, and horses, or *sise*, were often as well-armoured as the charioteers who drove them. Inventories from Nuzi list large numbers and various types of horse and chariot armour. This is supported by the pictorial representations from the chariot body of Thutmose IV. Textile protection of felt or hair about 3cm. in thickness, and extending from the withers of the horse to the loin, was known as a *parashshamu*. This was also provided with a neck piece or *milu*. Sometimes men could be equipped with similar textile armour. Apparently 22 minas of hair were required to make two sets of horse armour. The *parashshamu* could be used on its own or as an undergarment for a leather, copper or bronze scale *sariam* and *girpisu* for the horse. The chariot body could also be equipped with a scale *sariam*. One inventory mentions over 100 chariots with scale protection. The chariot shown in 93, derived from the chariot body of Thutmose IV, has such a scale covering on the cab, with a hole for the quiver. The scales on the coat of the horse seem to be rather stylised. Archaeological evidence exists for rectangular scales, weighing 80 grammes each, as shown on the fully armoured horse in 93a. Chariots could also be provided with simple dyed cloth covers, or *puratu*. 12 goatskins with thongs were required to cover a chariot. Chariots were drawn by a span, *simitta*, of two horses, which need not always be the same colour. Red, black, white and chestnut horses are known.



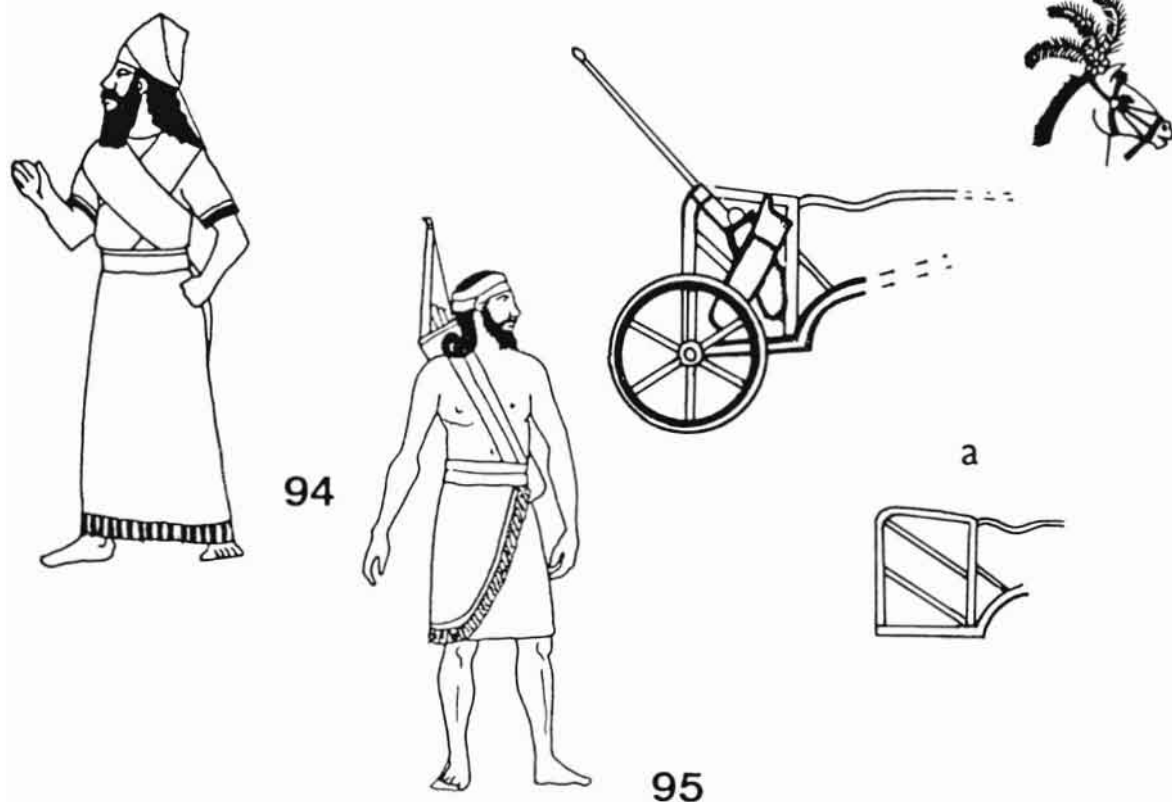
Chariot wheels of 4, 6 (93b) and 8 spokes are known from seals, and wheels were oiled to prevent warping in the hot climate. Between 9 and 11 sheepskins were required to cover the floor, *naruqqa*, of the chariot and the yokes were padded with wool. The equipment of a chariot included two bows, two quivers, a 'chariot-shield' and a *shukudu* or 'lance'.

Inventories also refer to wagons and possibly even a 4-wheeled wagon.

Assyrian and Kassite chariots would have been similar and there is ample evidence that Mitannian ideas spread as far as Canaan, Egypt, Hatti and even the Aegean.

94 & 95. KASSITE BABYLONIANS 17TH TO 13TH CENTURY B.C.

There are few representations of troops known from this period in Babylonia, a period which is generally poor in most forms of representational art. These figures are taken from representations on inscribed boundary stones, known as *kudurru*. 94 is a Kassite king. The crossed bands on his chest may be textile armour of the *tutiwa* type. His headdress seems to be an early form of the type later worn by Assyrian and Babylonian kings. The archer shown in 95 is taken from an unfinished *kudurru*, dating to around 1200 B.C., found in Susa, where it had been taken as booty by the plundering Elamites of Shutruk-Nahunte. Chariots probably owed much of their design and equipment to Mitannian models. The chariot was called *narkabta*, and Kassite seals depict vehicles with a box-like cab, crossed quivers on the sides, spoked wheels, the axle positioned beneath the centre of the cab, a horizontal supporting pole joining the cab to the end of the draught-pole and drawn by two horses. Representations of Assyrian chariots dating to the end of this period show vehicles quite different to the 9th century Assyrian type, but perhaps similar to that of the Kassites. The cab consisted of an open framework which does not appear to have been covered, although covers, like those used by the Mitanni, would perhaps have been available. The draught-pole is braced by a short supporting pole as well as a long horizontal pole. Light, six-spoked wheels were positioned at the rear of the cab. Crossed quivers were mounted on the sides of the cab and a spear was held in a holster mounted diagonally on the side in a similar manner to 96 and most later Assyrian and Neo-Hittite chariots, (possibly originating with Mitannian chariots). One Assyrian seal shows a chariot with a flat-topped cab which appears to have 'fenestrations' in the sides. The form of some of these chariots is shown in 95a.



96 & 97. CANAANITE AND SYRIAN CHARIOTRY, 15TH TO 13TH CENTURY B.C.

The chariot is based on a vehicle depicted on an ivory plaque from Megiddo dating to the 13th century B.C.. The scene shows a returning *maryannu* accompanied by runners and leading two bound Shaasu Bedouin or 'Apiru'.

The weapon cases contain a hefty spear and a wooden club as well as arrows. In battle the horse would be protected by a textile trapper, which could be covered with scales in the case of wealthy or elite *maryanna*. The term for a chariot was *merkhet*. Canaanite and Syrian military organisation was strongly influenced by Mitanni, especially in the case of chariotry. Many charioteers would resemble figures 87-92 in appearance and chariots similar to 93 would be known.

Retjennu charioteers dressed as figure 97 are shown being trampled by Tutankhamun in scenes from a painted box from his tomb. His richly-coloured and embroidered robes would in reality be concealed by armour, and the Egyptian artist may simply have copied the dress of visiting dignitaries. Clothing colours included white (most common), blue, green, crimson and purple. The last two colours, known as *argamannu* and *takiltu*, were dyes obtained from shellfish. The dye produced was known as *kinakhka*, and would be used only by the wealthiest and most important *maryanna*, madder provided a cheap substitute.

This charioteer carries a painted wickerwork shield. A type of cross-band armour and tasselled kilt worn by an Ugaritic king is shown in 97a. Textual sources indicate that this type of armour known as *tutiwa* or *tutittu*, was sometimes worn over scale or lamellar armour.

98. SYRIAN INFANTRY, 15TH TO 13TH CENTURY B.C.

These troops represent the supporting infantry of the Syrian chariotry. They were usually equipped with weapons best suited to skirmishing, such as javelins, throw-sticks and the bow. Shields were not very common, but would be similar to that of 97. The right hand figure wears a long-sleeved robe which fastened at the front and which is often shown being worn by tribute-bearers in Egyptian tomb scenes. It was usually white with coloured hem-bands.

99. CANAANITE INFANTRY, 15TH TO 13TH CENTURY B.C.

These would be typical of the majority of *hupshu*, or peasant soldiers. The left hand warrior appears in reliefs of the Ramesside period in Egypt, while the right hand figure comes from an ivory plaque from Megiddo. These troops supplied their own equipment so there could be great variation. Not all possessed shields, and many would only have bows or slings. Armour would be very rare except for simple textile types such as webbing or leather bands. Various types of turban or headcloth could be worn. Figure 99a shows the head of a Shaasu Bedouin with characteristic swept-back hair, otherwise, his appearance corresponds closely to figure 111. The style of tasselled kilt favoured by the Sea-Peoples was in fact long, common along the coast of Canaan and Phoenicia. 99b is an example of the huge sail-like standards that flew above the battlements of Canaanite cities, as depicted in Egyptian reliefs.

100. EARLY HATTIAN WARRIOR, c. 2400 B.C.

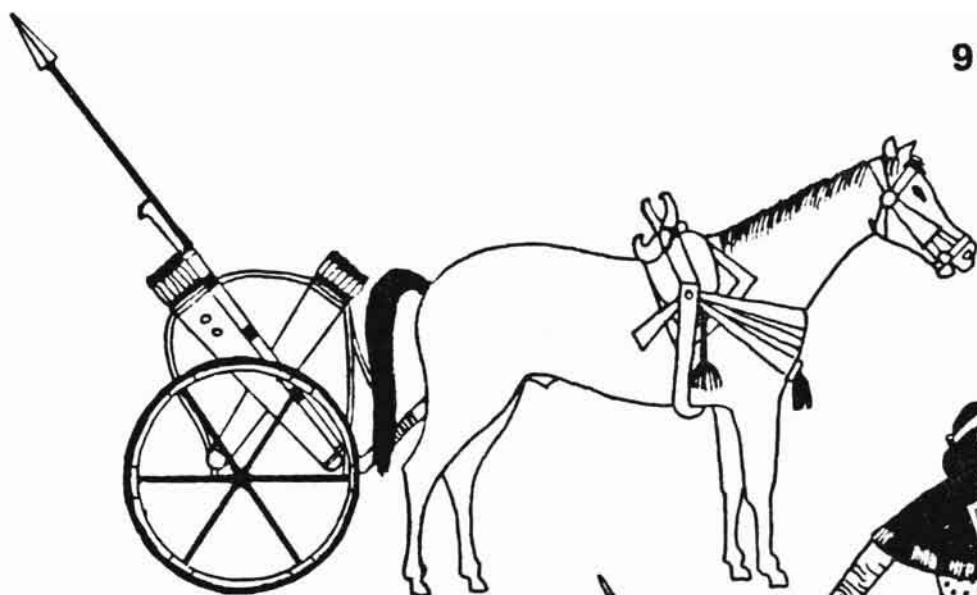
Later Hittite reliefs depicting axe-wielding gods (often considered as evidence for Hittite axemen), are most probably archaising representations reflecting dress and equipment of the pre-Hittite inhabitants of the Hatti-land. Reliefs at Malatya show the rather archaic type of chariot illustrated by 100c, which is clearly not contemporary with the types in use in the 1st millennium B.C., the date of the reliefs. This is a god's vehicle, pulled by oxen, probably derived from a vehicle like the Sumerian 'straddle-car'. Presumably onagers would be used in battle. Hittian seals depict four-wheeled vehicles as well, not unlike the Sumerian types. A representation of an Early Hittian charioteer shows him wearing a conical helmet.

Two types of axe-head are shown in 100a, and there are very many variants from different parts of Anatolia during the Early Bronze Age. The spearheads shown in 100b are long and narrow, perhaps suitable for long, thrusting-spears.

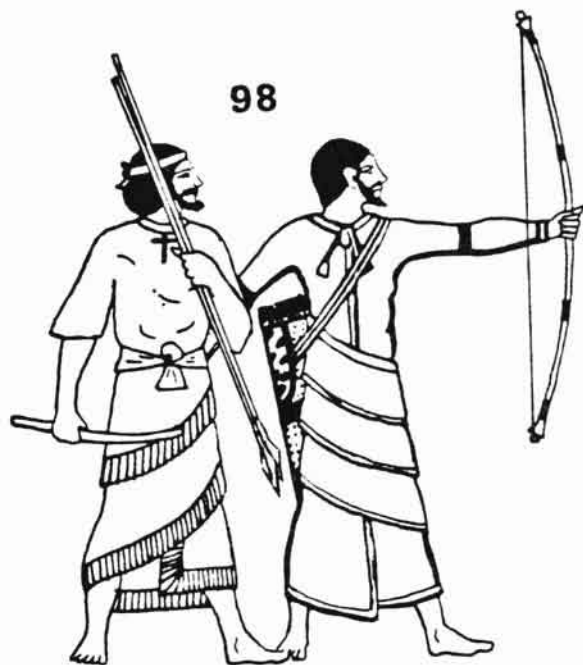
The dagger is derived from a type found in the princely tombs of Alaca Huyuk, as is the bronze stag shown in 100d. This could be a standard, staff-head or simply a terminal from a piece of furniture. Other bronze objects which are likely to have been standards were flat, circular, grille-like solar symbols. Weapon finds from tombs at Dorak included short spears, short swords and daggers, small axes and maces.

Anatolia was rich in metals and was astride the trade routes from Mesopotamia to the sources of tin and copper further west. The Assyrians set up special trading colonies among the Hittian city-states to corner this trade. Even iron was not unknown to the Hittians, but it was rare and far more valuable than gold. It remained a symbol of wealth and prestige until well after this period, and was used occasionally for princely weapons. It was no practical substitute for bronze.

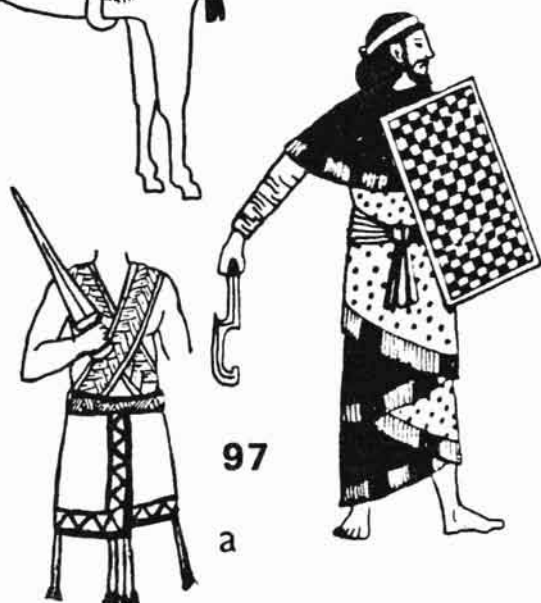
96



98



97



a



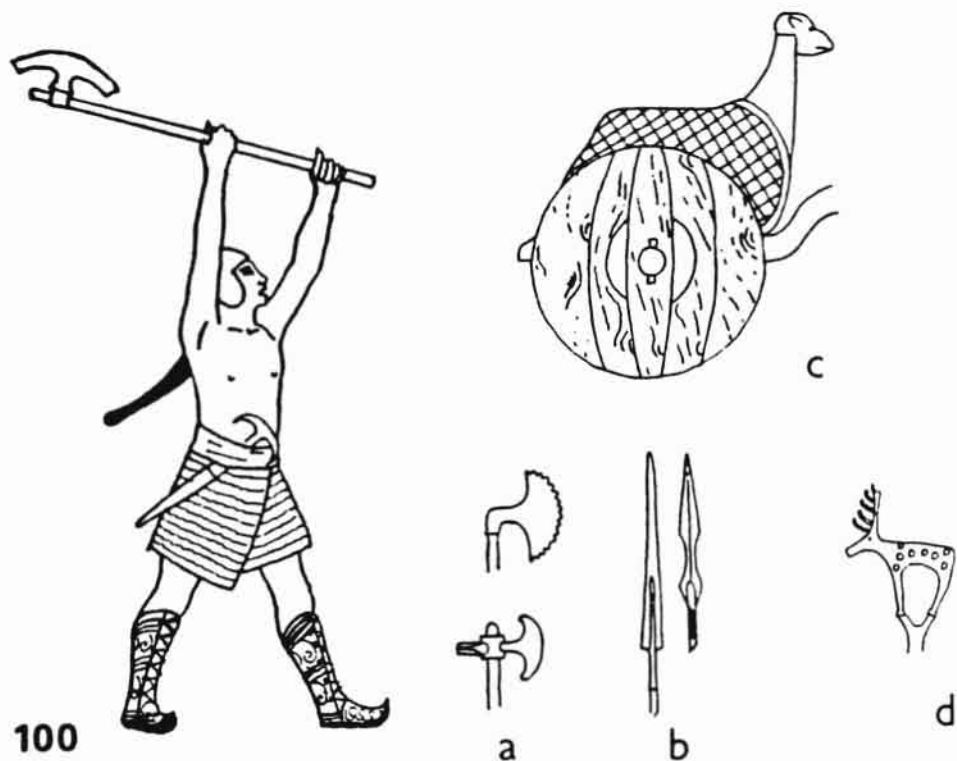
b



a



99



101. HITTITE CHARIOTRY, 14TH TO 13TH CENTURY B.C.

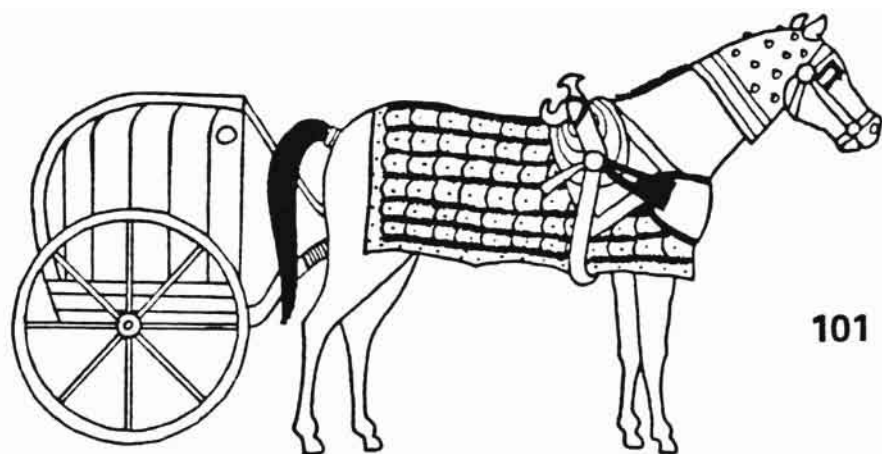
The chariots illustrated here are taken from the Egyptian reliefs depicting the battle of Kadesh. The variety of designs probably reflects the various regions of the Hittite Empire from which contingents were drawn. 101 and 101a seem to be constructed with slats of wood, 101b, is possibly covered with laminated hide, and 101c is similar to the typical Canaanite or Syrian type and probably belongs to allies from this region. The more robust examples have the axles set further forward than was normal in Syria, Canaan and Egypt. They represent Anatolian types varying from the skirmishing tactics of Syria to the close-combat techniques of the Aegean area. How to respond to these different types of chariot tactics must have added somewhat to the Egyptian confusion at Kadesh.

The horses in the Kadesh reliefs are usually shown as unarmoured but a scene from the temple of Abu Simbel shows armour as illustrated here. The Hittite chariot horses in this scene are clearly armoured with a scale *sariam* worn over a textile trapper, as used by their Mitannian counterparts, and a studded fabric *girpisu*.

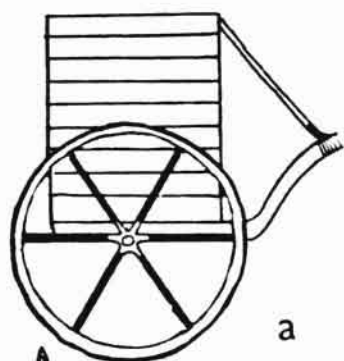
102, 103 & 104. HITTITE CHARIOT CREWMEN, 14TH TO 13TH CENTURY B.C.

The crew of a Hittite three-man chariot consisted of a shieldless driver, shieldless spearman and a shield-bearer who doubled as a spearman. It is possible that the three-man crew developed from a tactic of allowing a chariot runner to ride in the chariot. All the crew could be dressed as 102 and 103, but many were equipped with long, scale coats as 104, (104a is an example of a scale). All the figures here have been given shields to illustrate appearance and variety. The long scale coats are coloured alternately red and blue in the Ramesseum reliefs giving a striped effect. This is probably intended to represent rows of scales, alternating with stitching, or alternate rows of painted scales.

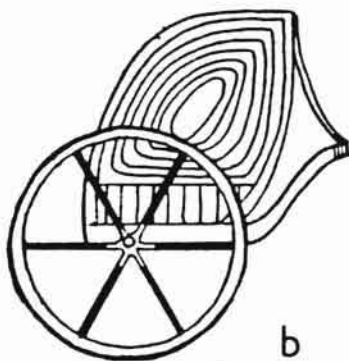
The sleeveless garments worn by 102 and 103 are probably a form of textile armour. The fact that both arms are left free suggests that it was thick and inflexible. Beneath this was worn long robes in plain colours or with embroidered patterns,



101



a



b



c



102



a



103



104



a

Hittite soldiers were normally clean-shaven and wore their hair in long pigtails or scalp-locks (102a). It has been often suggested that a memory of these warriors may have given rise to the legend of the Amazons and it is interesting to note that in the Egyptian Kadesh inscriptions, Ramesses II disparagingly refers to the Hittite charioteers as *humty*, literally meaning 'woman-warriors'.

Many Hittites wore helmets of Mitannian designs surmounted by plumes. There were two types of shield, both made of wickerwork covered by leather. The concave-sided type could be equipped with a boss. Spears were usually over 2m. long and up to four were carried in each vehicle. In the case of chariotry from Northern Syria a few crewmen substituted a bow.

The Hittite charioteers depicted in a scene at Abu Simbel carry their spears over the shoulder and at an angle pointing backwards with the shaft pressed into the hip and pit of the arm. This answers to the description of the *takshulan*, or 'at ease' position in Hittite drill manuals.

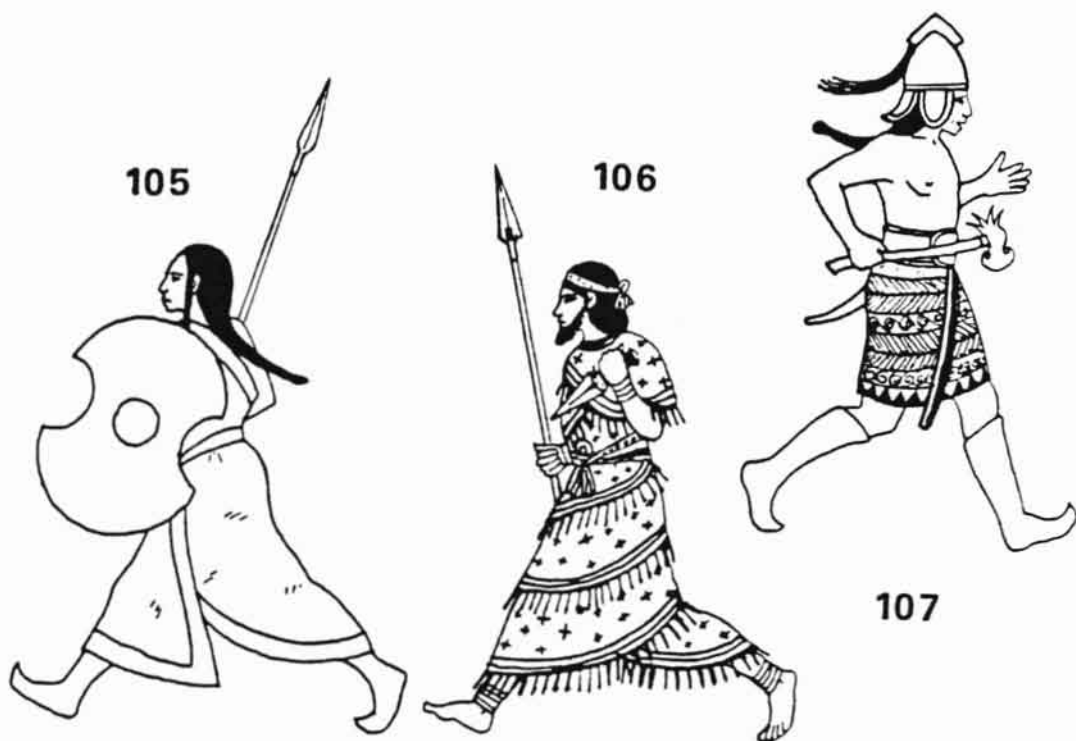
105 & 106. HITTITE INFANTRY

Hittite infantry included native Hittites and allies from Central Anatolia, dressed as 105, and allies from North-Western and South-Western Anatolia who usually wore short kilts and headgear linking them to the later Sea-Peoples. 106 illustrates allied infantry from Syria.

The Anatolian infantry were armed with short spears and daggers, while some Syrians were archers. The Anatolians carried a shield like that shown in 105 although not all soldiers possessed one. Syrians appear to have been usually shieldless.

Clothing, especially that of the Syrians, would be gaudily embroidered. Glazed tiles, depicting captives, from the site of Pi-Ramesses in Egypt, indicate the range of colours and patterns. Colours included black, white, red, blue, green and yellow.

These troops, together with those described under 108-111, are sometimes referred to as *tuhuyu* in Egyptian records.



107. HITTITE GUARDSMAN

This is taken from numerous small figurines and sculptures found at Boghazkoy, the ancient Hittite capital of Hattusas, which represent gods in the ceremonial dress of a royal guardsman. In battle this man would almost certainly appear as a fully armoured charioteer. He has, however, retained his helmet from his war panoply. This type of helmet is described in texts from Nuzi and is associated with the expensive protective equipment of the elite *maryannu*, (cf. figure 90d). The helmet was secured under the chin with a leather strap.

Hittite royal guards were known as *meshedi*, and it seems quite reasonable to suppose that they were elite chariotry.

In battle the Hittite king would have appeared as a particularly well-equipped charioteer.

This guardsman is dressed for palace or parade duties.

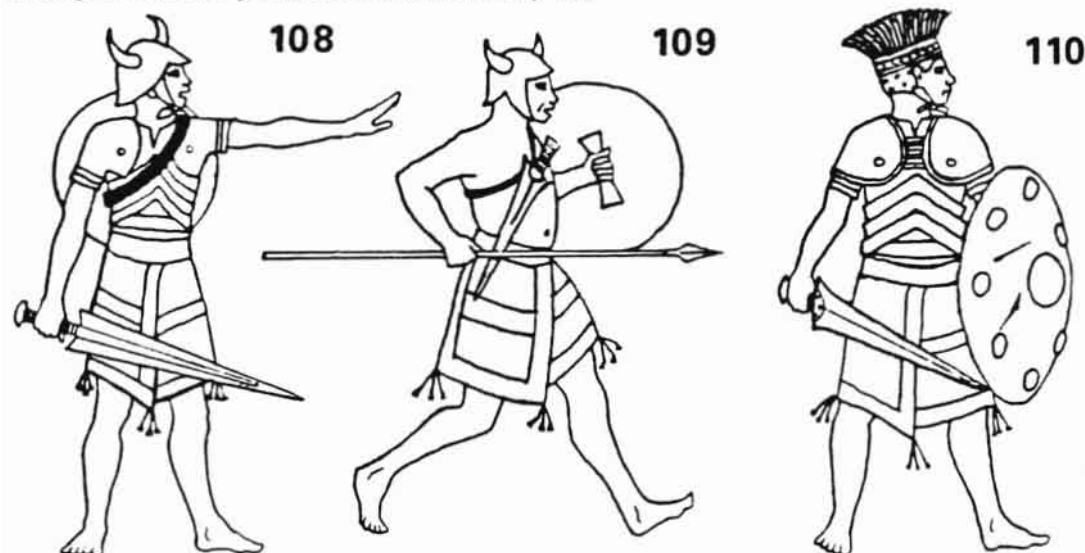
108, 109, 110, 111 & 112. SEA PEOPLES

The 'Sea-People' was a collective name given by the Egyptians to various displaced peoples and sea-raiders, consisting of the Sherden, Lukka, Ekwesh, Teresh, Sheklesh, Peleset, Tjekker, Denyen and Weshwesh. It is not possible to establish for certain the appearance of many of these, especially the Ekwesh, Lukka and Weshwesh. The others can be identified in Egyptian reliefs depicting captives, and some may be compared to representations of Hittite allies in earlier reliefs.

A common feature of dress was the tasselled kilt, native to Southern Anatolia and the Levant. The Teresh and Sheklesh wore banded linen or leather armour in addition, while the Sherden, Peleset, (and probably Denyen and Tjekker) wore a leather or metal cuirass. The horned helmet was characteristic of the Sherden, and also occurs on bronze statues of warrior-gods from Cyprus and Sardinia (see also 203). The Sherden were armed with long swords (over 1m.), javelins and round bucklers.

The 'tall-crown' worn by the Peleset, Denyen and Tjekker was not made with feathers as often thought, but was probably a circlet of reeds, stiffened hair, horsehair, linen or leather strips. It was held in place by a decorated fillet and chin-strap. This headgear is also found on anthropomorphic coffins from Palestine. It may be related to a sort of swept-back headdress like that of the Shaasu (99a) and some of the Hittite allies (111b). This headdress distinguished the Sheklesh, while 111 could represent either a Sheklesh or Teresh. The headcloth shown in 111a is also associated with the Teresh and occurs among some Hittite allies, as does a type of turban shown in 111c, which is associated with the Peleset and Tjekker.

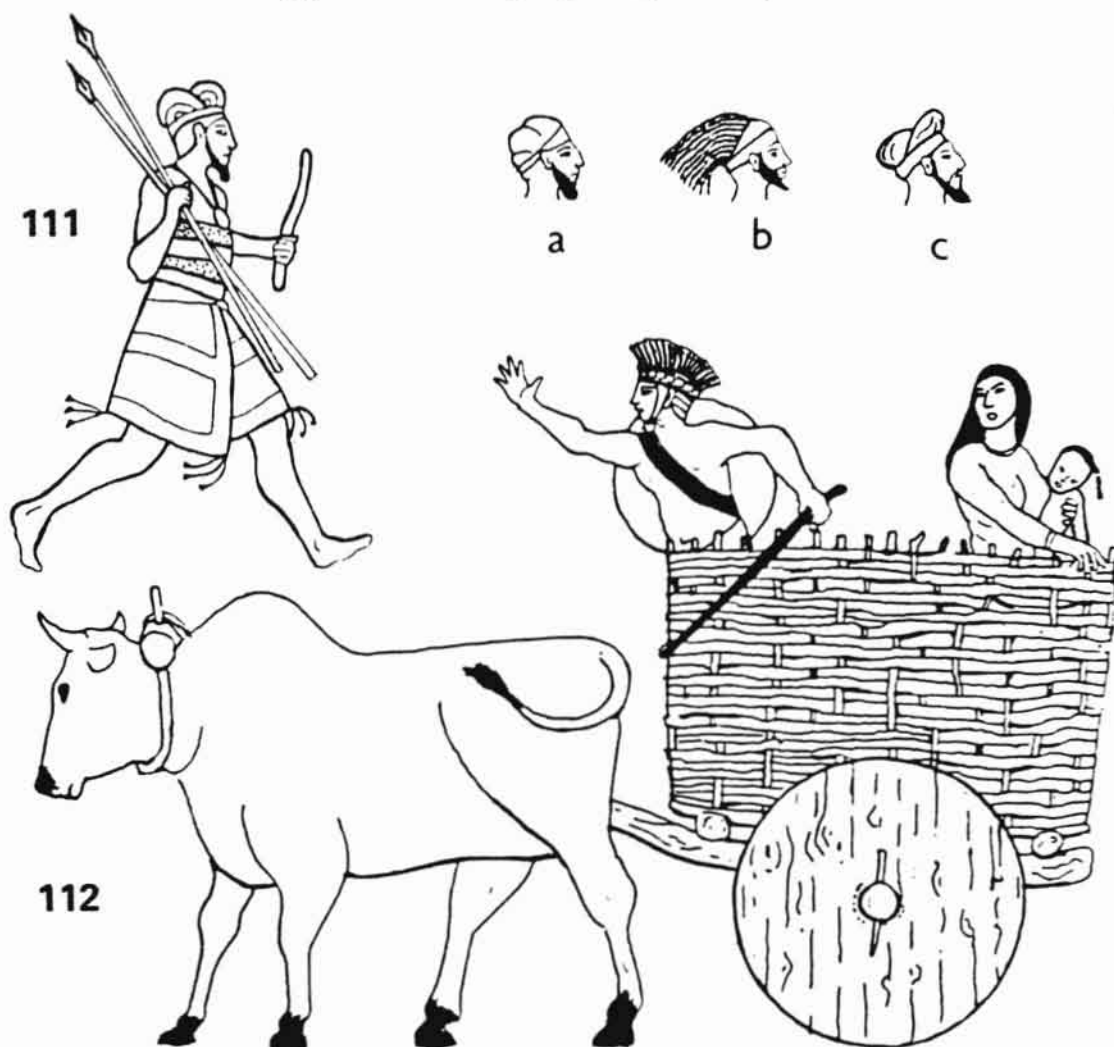
The cuirass worn by 108 and 110 could be bronze or leather. It appears to be similar in conception to the Dendra armour but with the abdominal plates reduced in size to give torso protection only, and without a neck-guard. The studs on the shoulder plates are not rivets but an imitation of human anatomy. This might also explain the rib-like markings on the lower part of the cuirass instead of plates.



The buckler was probably leather with moulded bosses or bronze bosses attached, many of the helmets were probably also leather.

The kilt may be reinforced with leather strips. The Medinet Habu scenes show clothing brightly coloured in green, blue, red and white.

Most warriors were infantry, but some chariots crewed by three men took part in the land attack on Egypt. Egyptian-style chariots are depicted, but they may in reality have been an Anatolian type. Illustration 112 shows one of the carts drawn by four oxen carrying the families and belongings of the Sea-Peoples which formed a large proportion of their land forces. The Egyptian reliefs show fighting taking place among the carts.



113. HEBREW INFANTRYMAN, 11TH CENTURY B.C.

There are hardly any representations of Hebrew warriors and their appearance has to be summarised with evidence gleaned from neighbouring states. This figure is an attempt to reconstruct the dress and equipment of an *ish hayil*, a 'valiant man', or an *ish bahur*, 'picked man' during the reigns of Saul and David (c. 1025-1006 B.C. and 1006-968 B.C.). His equipment is a mixture of Canaanite and Philistine items and includes a shield, *magen*, a thrusting spear, *romah*, and a bronze helmet or *kobha*. David's 'Mighty Men' or *gibborim* may have also worn a scale or lamellar corslet, *shiryon*, similar to that worn by fig. 91. The great mass of Israel's militiamen would be much more lightly-equipped, the majority being armed with the javelin, *hanith*, or sling.

The equipment of troops such as this would probably be in a constant process of change as his original locally made possessions were replaced by booty from the battlefield and items obtained by trade.



113



a

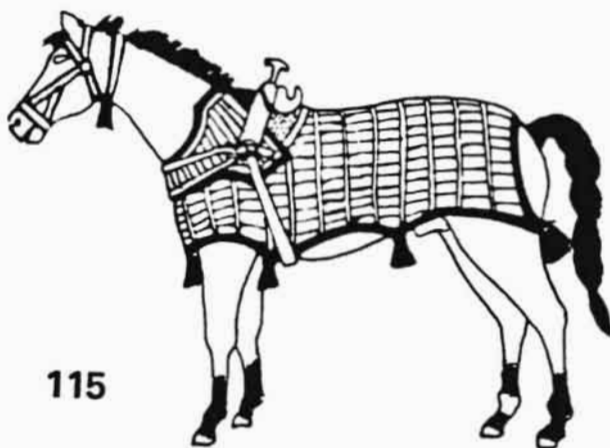
114

114. AMMONITE RULER

Ammon, Edom and Moab were kingdoms located east of the Jordan river. Edom was already an organised state with a king before the Hebrews entered Canaan under Joshua. A large part of their populations were settled and lived in towns.

Their military organisation was similar to that of the early Hebrews and based on a tribal levy. Their forces were mainly infantry, and on one occasion the king of Ammon is said to have had to hire chariotry from Mesopotamia, Syria and Aram-Zobeh to meet an Israelite threat.

114a shows the head of the Moabite king, Balua.



115

115. LEVANTINE CHARIOTRY, 12TH TO 10TH CENTURY B.C.

These illustrations are based on the numerous Syrian representations of chariotry in ivorywork and on a scene from an ivory box from Enkomi in Cyprus. The charioteers in this hunting scene are accompanied by runners wearing Peleset-style headgear.

The chariot remained relatively unchanged from earlier Canaanite and Syrian types. The horse is protected with a scale or lamellar trapper and is provided with extra padding beneath the wooden yoke-saddle. The warrior's scale coat fastened at the front on most Syrian examples, and Solomon's charioteers would probably have appeared very similar. Since he obtained his chariots from Egypt they would presumably be similar to fig. 23. The tail of the horse has been plaited.

Elite Israelite charioteers were called *ne'ar*, a term obviously derived from the Canaanite *ne-arim*. When Ahab was besieged in Samaria by Ben-Hedad II, the Syrians were routed by 232 *ne'ars* who were part of Ahab's retinue.

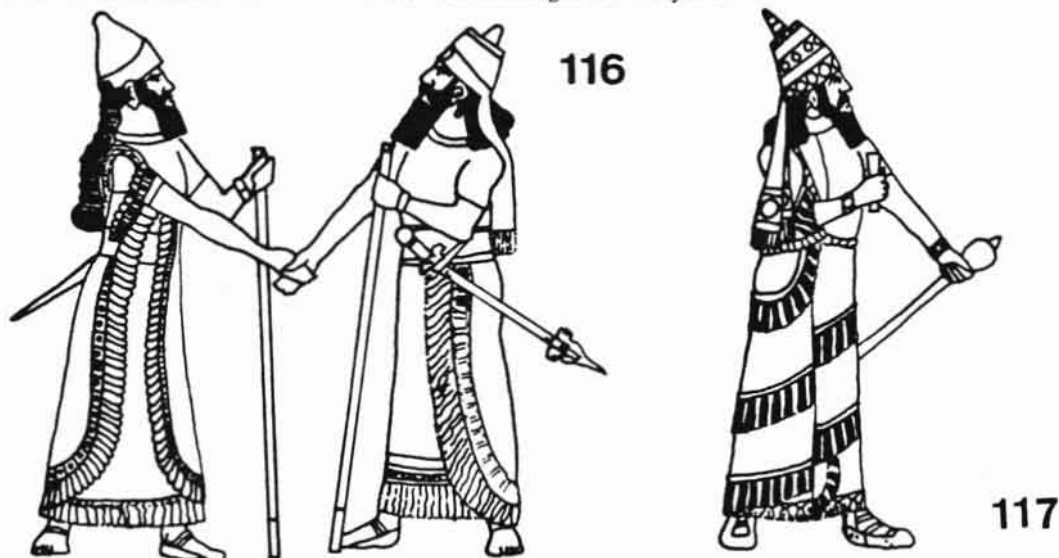
116, 117 & 118. ASSYRIAN ROYAL DRESS, 9TH TO 7TH CENTURIES B.C.

116. These figures are taken from the massive stone throne dais found in the *ekal masharti*, or arsenal, at the Assyrian military capital of Kalhu (modern Nimrud). Scenes on the dais depict the meeting of Shalmaneser III, the King of Assyria, with Marduk-zakir-shumi, the King of Babylon, in about 850 B.C.

Both kings carry long staffs of office, and wear distinctive crowns. The Assyrian royal crown appears to have been derived from a simple white 'fez' or polos of Kassite origin (cf. fig. 94) which formed part of Kassite court dress. This simple polos was worn by both the king, high officials of the court, and the nobility in Assyria until the tenth century B.C. At this time the king's polos was distinguished by a small cone placed on the top, and, later, by a long, red, brow-band around the base. By the reign of Ashurnasirpal II, only high-ranking servants of the king's household are depicted wearing the simple polos, and even this restricted usage seems to have been forbidden as royal power and prerogative increased during the ninth century. The nobility, however, were quick to usurp the privileges of royal dress when the power of the monarchy was weak, as was the case during the reign of Shalmaneser IV (782-773 B.C.).

Shalmaneser III wears a long, simple tunic, fringed at the hem, and a shawl thrown over one shoulder and secured at the waist with a broad, metal belt. Marduk-zakir-shumi, similarly dressed, wears a fringed double shawl, open at the front on the left side, the long fringe of which is gathered over the right arm. The sleeves of his long tunic are richly decorated with woven or applique patterns. The decoration on Assyrian royal robes of the time could be similar, with either geometric designs and metal or fabric appliques of chariots and hunting scenes.

The Babylonian king's hair is gathered in a distinctive, thick plait down his back. The Babylonian crown appears in a conical form which will remain more or less unchanged for 400 years.



Both kings carry long swords, Shalmaneser's being decorated at the hilt and the chape with images of twisting, snarling, lions; their interlocked paws grasping each other across the weapon. On the throne dais attendants stand behind each king, carrying his bows and quivers.

117 is a representation of Esarhaddon from the Zinjirli stela showing the abject submission of Tirharka of Egypt, and Abdi-milki of Sidon.

The Assyrian crown became progressively taller and more elaborate during the eighth and seventh centuries, with decorative bands of metal rosettes.

The king's ceremonial robes consist of a long, white robe, split at the front and decorated with tiers of coloured trim and a fringed, tasselled, hem. A short, trimmed shawl is worn over the shoulders, both robe and shawl being secured with a plaited belt at the waist. The trim and fringes could be coloured red, blue, or green, or multi-coloured. The entire robe could also be covered with applique rosettes or stars.

Unlike earlier kings, Esarhaddon wears boots instead of sandals.

This type of ceremonial royal costume (aside from the crown) is attested from the thirteenth century until the end of the Neo-Assyrian period. The mace appears to have constituted part of this formal dress.

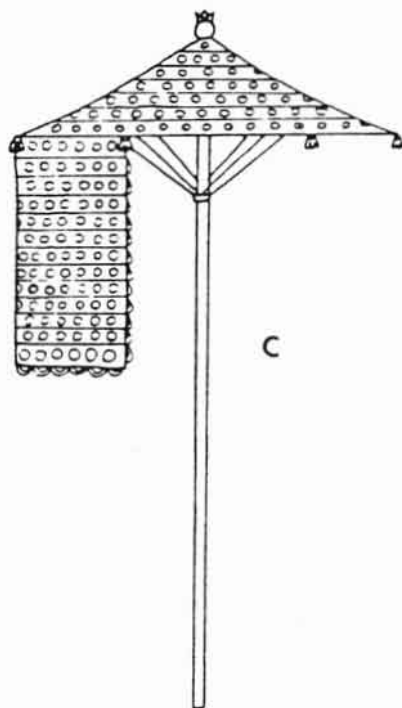
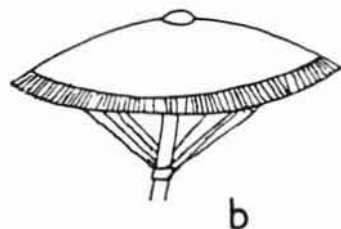
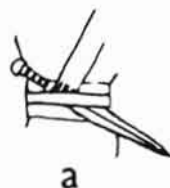
In his left hand the king carries a sweet-smelling flower, or a perfume-holder in the form of a lotus.

Before the late eighth century, Assyrian hair was long, falling on the shoulders in a fan-shape. After this time, Assyrians wore their hair bunched 'square' on the shoulders. Royal beards, cut square, are always shown as impressively long, and much longer than a commoner's beard.

118 shows King Ashurbanipal dressed for the hunting field, and as such probably comes close to depicting the kind of garments worn by seventh century Assyrian kings when on campaign.

The long robe, richly decorated with metal plaques of stars (the symbol of Ishtar, the Assyrian goddess of love and war), is hitched up under the metal waistbelt, and is split at the front for riding. On the breast of the robe is a large, applique panel, with metal plaques of the Morning-Star flanking a winged disc (the symbol of Ashur) above a sacred tree. The garment's short sleeves, which have bands of intricate decoration, end beneath gold spiral arm-bands.

118



The king wears high, leather boots, which seem to have been often dyed blue, with red trim and a brown heel-reinforcement and sole. The boots' long laces are carried up to be tied below the knee. The long, woollen socks, always worn with boots of this type, have rows of zig-zag colour, either red, blue, green or white, (red, white and blue being the most common combination). The Assyrians adopted the wearing of boots and socks (which end just above the knee) from the highland Mannaeans during the late eighth century.

Around his head the king wears a browband, with a decoration of large metal rosettes. The long ends of the band trail down the king's back to his waist.

As he is hunting, the king carries a short sword under his sword-belt (above the metal waistbelt) and suspended from a wide baldric (118a, omitted from 118 for reasons of clarity). A long, composite bow is carried below his left arm, on which he wears a wrist-guard, or bracer, tied around his forearm and thumb.

The two rods carried below the waistbelt appear to be writing styli, since Ashurbanipal, unlike most other oriental monarchs (and, indeed, the great mass of the population) was literate in Akkadian, and to a lesser extent, Sumerian — a feat of which the king was immensely proud. Much of our knowledge of Mesopotamian literature is derived from Assyrian texts copied for Ashurbanipal's library at Nineveh (the capital of Assyria in the seventh century B.C.).

The king is shown with drawn sword about to face a wounded lion on foot. Captions prepared, but never carved onto, Ashurbanipal's palace reliefs tell how, after a successful lion-hunt, the king and his bodyguard of young Elamite princes (NB the 'Kardakes', or youth-troop of the later Persian kings) had dismounted to collect the kill. One lion, however, was wounded and only shamming dead; as the king approached it leapt up and attacked the king, who managed to despatch it with his sword — his squires having run off in fright!

All Mesopotamian kings wore large amounts of jewellery. Here, the king wears large, lunate earrings and spiral arm bands.

118b shows the shape of the royal parasol in the ninth century; 118c the rather more angular eighth and seventh century version with a rearward sunshade. Mesopotamian parasols seem to have been identical in construction to Chinese examples, the body being stiffened cloth stretched over supporting ribs. The ribs were tied to a ring on the pole, by which it could be opened and closed. The edge of the parasol shade was decorated with clusters of tassels, the pole itself terminating in a large, decorative pomegranate.

Assyrian royal parasols were generally carried by palace eunuchs, like figure 152. The parasol was a mark of royalty.

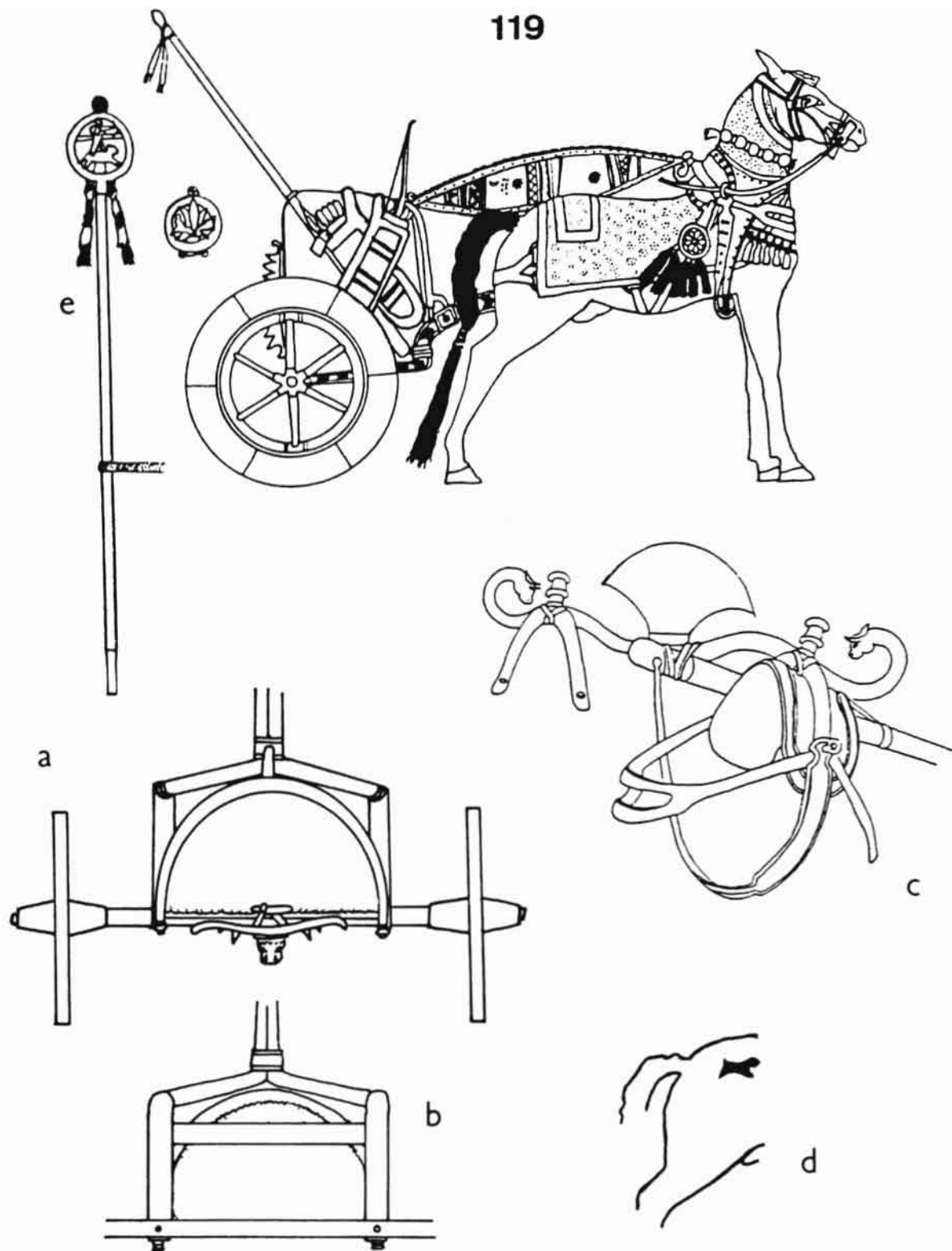
119. ASSYRIAN CHARIOT, 9TH CENTURY B.C.

Assyrian chariot design evolved rapidly in the 9th century due to influences from Iran and the Transcaucasus.

In 9th century Assyrian art the chariot cab is depicted as a box of slightly below hip-height, its solid sides sloping gently down from the rounded upper rear corners to the front. Although the cab framework is hidden by the solid sides we can assume, by analogy with earlier Egyptian chariots still extant, that a single wooden pole was heat-bent through steaming to roughly the shape of a 'C' to form the lower frame for the chariot floor. The open ends of the 'C' were joined with a morticed spar, and the actual floor was made from leather thongs passed through slots cut in the lower-frame and interwoven to provide a flexible, strong and supple surface which would absorb the bumps and jolts of travel on an otherwise unsprung vehicle. This flooring was usually covered by a woven rug in Near-Eastern chariots and the tassels of such rugs are often shown behind the wheels of Assyrian chariots (cf. fig. 126). The cab's upper rail was similarly made from a heat-bent pole, its ends being joined to the rear of the lower frame and secured at the front by one or more straight wooden struts. This frame was probably covered with oxhide, stitched and lashed around the upper rail and lower frame.

It is clear that this construction was intended to produce a light but strong cab. The joints of the floor frame were kept tightly closed by the weight of the crew on the interwoven thong floor, and the upper rail made resilient by the use of as few joints as possible by heat-bending. The ends of the floor frame were probably protected by calcite or bronze knobs, as on earlier Egyptian chariots. With the change to a square chariot cab in the 8th century these would have ceased to have any practical use, and indeed, later Cypriot chariots had a decorated oval disc secured with a bronze finial in this position.

119a shows a plan view of the cab, and 119b, the underside revealing the subframe.



It is possible that, as with later Cypriot chariots of similar construction, 9th century Assyrian chariots had an upright partition dividing the cab down the centre and a tall metal hoop situated behind this and above the axle. A partition would give the crew an internal support to brace themselves against during turns or to lean on if tired, whilst the hoop would have been an aid to climb into the cab and have functioned as the support for the round, spiked, shield which is often shown closing the open rear of the cab. Assyrian chariots probably had only a partial partition as a third crewman is often shown riding behind the other two and is always shown grasping a leather loop knotted to the junction of the draught-pole supports and upper rail at the cab front. This extra handhold may have been necessary because the third crewman's movements were restricted by a partition that kept him off balance whilst not being high enough to provide a handhold.

The cab front was probably about 0.80 metres high at the front, rising to 0.90 metres at the rear, with a depth of box from front to back of 0.63 metres.

It is however in the design of the chariot sub-frame and the draught-pole that 9th century Assyrian chariots differ most significantly from the construction of earlier Near-Eastern chariots, these changes being most evident on the highly-detailed chariots from the bas-reliefs of Ashurnasirpal II (883-859 B.C.). Earlier chariots, as exemplified by surviving Egyptian examples, had a simple sub-frame with a single, heat-bent draught-pole sandwiched between the rear-mounted axle and the two grooved mountings that connected the axle to the sides of the floor frame. The draught-pole thus ran beneath the centre of the cab floor, being secured by leather thongs to the front of the floor frame, before curving upwards to support the yoke. The chariots depicted on Ashurnasirpal's reliefs, however, displayed several unusual features that one would not expect if they were constructed in this way. All save two of these chariots have draught-poles that clearly pass across the lower front of the cab to a ribbed element situated on a wedge-shaped spar that passes at the level of the cab floor, back, behind the wheel, to the axle. In addition, several chariots are shown with a second curved shaft below the draught-pole which joins a similar ribbed element and spar, below, and sometimes overlapped by, the first. These clear and consistent details can only mean that these chariots had two draught-poles, no longer heat-bent to pass under the floor frame, but socketed into two separate spars placed on either side of the cab, the ribbed element being a metal clasp securing this vital joint. The two draught-poles converged a short distance ahead of the cab to run together up to the yoke. This 'Y-pole' construction was most probably derived from the two-wheeled 'A-frame' carts of the Transcaucasus and may possibly have been employed on 10th century Iranian chariots.

It is not as yet clear when this draught system was adopted in Assyria. However, Ashurnasirpal II campaigned to the north of Assyria early in his reign and it is probable that he made his artists go to considerable trouble to show a technological advance of which he was proud. Certainly his artists seem to have been very unsure as to the best way of portraying the two draught-poles since the representations often differ.

This change in construction will have given a much stronger sub-frame and a more secure cab for only a slight increase in weight. The draught-pole spars, taking the place of the earlier mountings between the floor frame and axle, would have supported the floor frame for a greater part of its length, whereas a longitudinal beam between the spars and beneath the front of the cab would have provided more support here than the earlier, single draught-pole. The double draught-pole would be less susceptible to lateral stresses during turns and would be overall more rigid and have a greater resistance to accident and the rigours of campaign. It is also probable that the change from a rounded to a square cab that took place at the end of the 9th century B.C. in Assyria was a by-product of these changes to the sub-frame. A more economical and spacious construction could be achieved by omitting the floor frame and basing the cab and floor directly on the rectangular sub-frame formed by the draught-pole spars.

In addition to the metal clasps at the junction with the sub-frame, the 'Y-pole' is shown to be supported at two other points; at the point where the converging draught-poles meet, and at the end of the combined poles. The former support is clearly derived from earlier pole-braces of leather thongs which reinforced the connection between pole and cab, or wooden struts, placed so as to appear as a 'V' when viewed from above, which also strengthened the cab front. On 9th century Assyrian chariots this combined cab and draught-pole support appears as a curved rod, branching into two at the junction with the draught-pole, where it joins a collar securing the two elements of the 'Y-pole'.

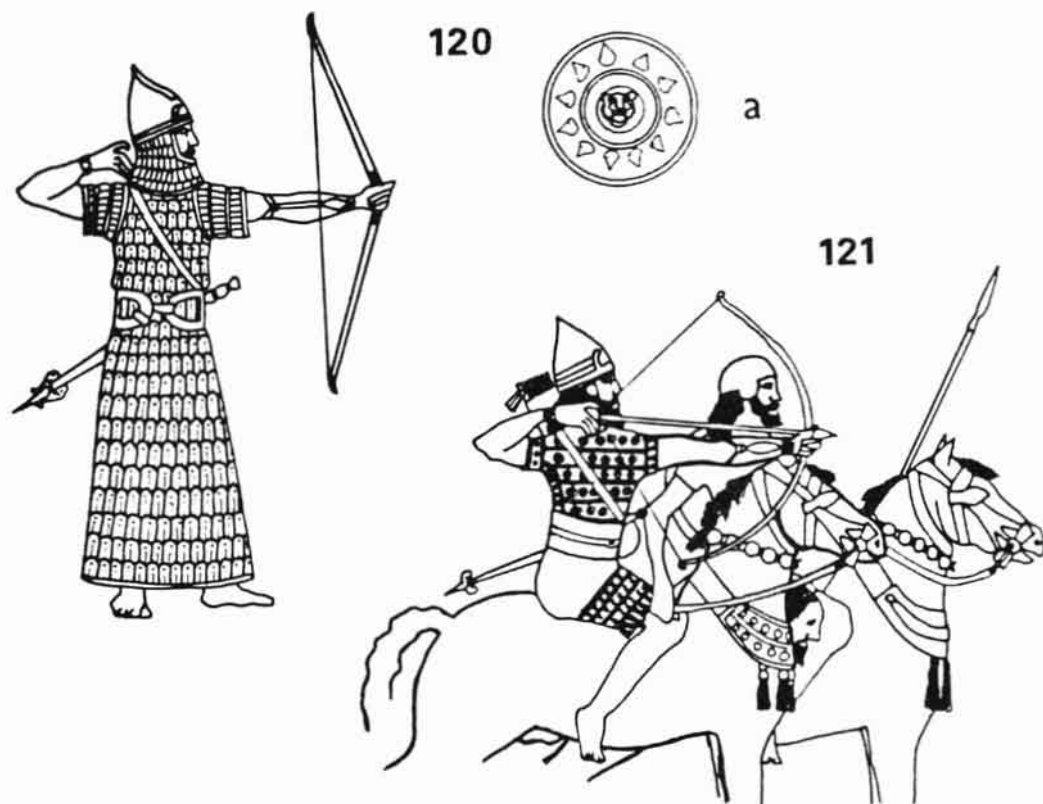
The second draught-pole brace was probably designed to support its far end, and takes the form of an elliptical element, often with a serrated upper edge, running from the top of the cab front to the yoke. The serrated effect along the upper edge of the support probably represents either a series of metal rings or loops of leather used to fasten a decorative, elliptical, cloth over a wooden pole. This pole curved upwards from the upper rail of the cab before bending down to join the draught-pole near the yoke. One end of the decorative cloth was knotted to the top of the cab/draught-pole support, the other to the yoke-pole. A similar arrangement of a cloth suspended from

an upper pole is shown on some early contemporary Neo-Hittite orthostats (cf. fig. 169) and on earlier Mycenaean frescoes. However, where triangular, rather than elliptical, cloths appear it may be presumed that the cloth is hung not from a pole, but from a taut thong supporting the pole-end. The use of a thong instead of a pole may be found on earlier, 12th century, Assyrian chariots, on chariots from Geometric Greek vases, and some Neo-Hittite reliefs. The thong and pole braces functioned in a similar way to the thongs or struts between the cab and draught-pole described previously, with the solid pole variety perhaps preventing the draught-pole from moving vertically and placing undue strain on the joints with the draught-pole spars.

This type of chariot is depicted in reliefs from the reigns of Ashurnasirpal II at Nimrud and on the bronze gates of Balawat, dating to the reign of Shalmaneser III. These chariots are shown being drawn by two or three horses. It has been suggested that the third horse was a replacement, harnessed to one side of the team as an outrigger. This would present problems in driving and increase the chances of a horse being wounded. Should this occur at speed, the chariot would probably be rendered useless as a fighting unit, perhaps collapsing, wrecking the vehicle, throwing the crew and injuring the other horses; a situation unlikely to be rectified by a single spare horse, and an impractical tactical arrangement. However Iranian and other sources clearly depict three-horse chariots at this date. Four-horse chariots appear to have been restricted to elite units. The two-horse chariot yoke was adapted to take four horses by the outer horses being attached to the upturned ends of the yoke. Only the inner horses had wooden yoke-saddles and the outer horses would thus exert no pull. This was further improved later on to enable equal pull. The harnessing arrangement is shown in 119c. This is designed for a 2, 3, or 4-horse chariot and shows the breast-band and backing element.

Armament comprised bow, axes, spear and darts. Two crossed quivers were attached to the sides of the cab; the spear was held in a separate holster. Sometimes standards were carried in the chariot, such as 119e. They were disc-shaped, bearing the image of the god Ashur or other religious devices.

The horses in this illustration (based on a Nimrud relief), wear a decorated textile armour as shown on the king's chariot. Other chariot horses have plain textile armour, some with lamellar trappers. Figure 119d shows an Assyrian brand.



120. ASSYRIAN CHARIOTEER, 9TH CENTURY B.C.

This charioteer is wearing a long, scale *sariam*, probably a development of the earlier Hurri-Mitannian type. It differs in being longer and being equipped with a scale 'coif' (*girpisu*). On his head he wears a conical Assyrian helmet (*huliam*). Iron (*parzilli*) was now coming into more general use, but bronze was still the principle metal used for armour, iron being used as a cheap substitute and for weapons. Archers equipped in this way are depicted in scenes on the bronze gates of Balawat, dating to the reign of Shalmaneser III, and on reliefs of Ashurnasirpal II, operating dismounted at sieges. The extra armour would probably be particularly useful in such exposed activities as mining, and chariotry could not be usefully employed mounted on such occasions.

Figure 120a shows the small round shield used by charioteers at this time. The boss is shaped in the form of a lion's head. It could instead be covered in spiked bosses (122b). Chariot-crew consisted of two or three men, the third man acting as a shield-bearer to the archer, dressed as figure 122.

121. ASSYRIAN CAVALRY TEAM, 9TH CENTURY B.C.

The Assyrian use of cavalry, mounted warriors as opposed to scouts or messengers, is first recorded in the annals of the sixth regnal year of Tukulti-Ninurta II (890-884 B.C.) when it seems that the first faltering steps in this direction were taken. It seems probable that the use of cavalry grew naturally out of riding unhitched chariot outriggers, a process which gained impetus under the stimulus of Iranian, and possibly Aramaean, practice. In Assyria the evolving cavalry arm appears to have become formalised in the reign of Tukulti-Ninurta II, since this reign's style of chariot harness then becomes the 'traditional' form of cavalry harness until the mid-8th century B.C. These figures are derived from bas-reliefs of Ashurnasirpal II.

It is noticeable that cavalrymen were still considered as part of the 'chariot-system', operating in pairs like charioteers without a chariot. Here, the 'chariot-warrior' wears a highly decorated tunic and wrap-around kilt with a wide waistband (cf. fig. 139) under a narrow belt. A tasselled quiver and long iron sword are carried on a single baldric over the right shoulder. His head is protected by an iron conical helmet with inlaid bands of crooks of bronze. In contrast, the 'charioteer' wears an iron skullcap or *gulgullatu*, and carries a shield and spear, both standard items of chariot equipment. He manages both horses, like a charioteer, enabling the archer to concentrate on his shooting just as if he were in a chariot.

Though the riders of non-royal horses are still shown using the 'donkey-seat', and riding on the horse's rump without a saddlecloth, the cloth on the king's horse (always shown in close attendance on the royal chariot and managed by a cavalry 'charioteer') is in the correct position for a true horse seat. This probably indicates that the traditional 'donkey-seat' was at last seen to be unnecessary on horseback, no doubt because of a greater experience of riding in varying conditions due to cavalry warfare.

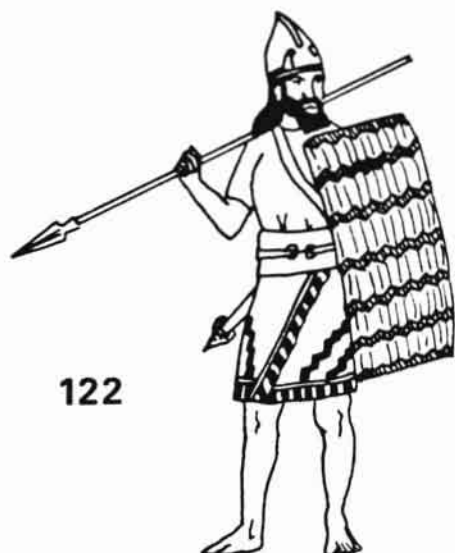
In general, the form of horse-harness is identical to that of chariot horses on parade. However, in using the breastplate as part of the harness it seems that an earlier element of harness, no longer very common for chariot horses, is retained as a 'traditional' element by Ashurnasirpal II's cavalry, though not by Shalmaneser III's cavalry horses. Cavalry horses are not shown wearing any form of protective trapper, in common use for chariot horses, until the mid-7th century B.C.

During the reign of Ashurnasirpal II's son, Shalmaneser III, both members of the cavalry 'team' were equipped with conical helmets. On occasion, when crossing rough terrain and bridges, the 'charioteer' is shown carrying the archer's bow and quiver, thereby giving the impression that some 9th century cavalrymen were armed with both spear and bow, although this is not the case.

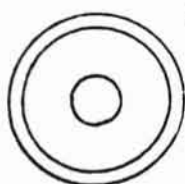
Here, the cavalry archer is shown with an enemy's severed head slung from the bridle. While it was common for Assyrian warriors to collect heads to prove their valour and gain shares of the campaign's booty, this practice is also attested for Iranian mounted nomads and may well be a result of their general influence at this date. An alternative view would be that it was the Assyrians who introduced the Iranians to the pleasures of headhunting!

122, 123, 124 & 125. ASSYRIAN INFANTRY, 9TH CENTURY B.C.

These figures are based on representations of Assyrian soldiers from the reigns of Ashurnasirpal II (883-859 B.C.) and his son, Shalmaneser III (858-824 B.C.). From the reign of Ashurnasirpal II until the collapse of the Neo-Assyrian empire, the kings of Assyria decorated their palaces with large limestone bas-reliefs, which came increasingly to depict the military exploits of the king and the state. Due to their large scale and detail these reliefs provide the most complete picture available of the appearance of a powerful Near-Eastern state at war.



122



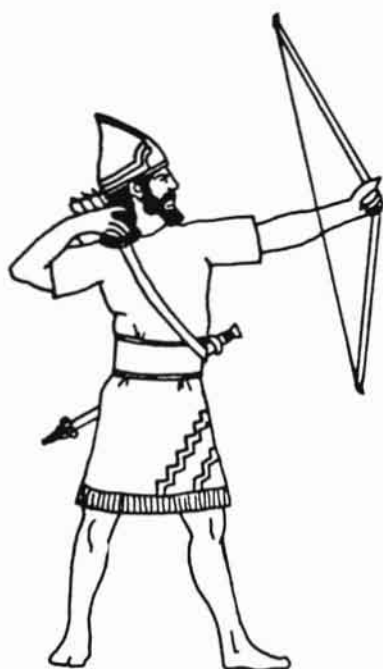
a



b



123



124



125

122 is an infantry spearman, probably an *asharittu*, or elite soldier, since non-elite troops would very likely not be issued with helmets, or wear such richly decorated garments. He wears a plain woollen tunic with a wrap-around kilt having multicoloured trim, and stepped, zig-zag decoration of, probably, Aramaean inspiration (cf. fig. 175). For offence, the warrior's main weapon is a javelin or short spear, a sword being carried suspended from a baldric. For protection he bears a rectangular convex shield, made of wooden staves, or reeds, bound together with leather thongs.

122a and 122b show the type of round, bronze-faced shields carried by cavalry shieldbearers and some *asharittu*. These shields could either be plain, with a simple boss and turned-over rim (a), or adorned with one or more concentric rows of metal spikes (b) for offensive use. These shields are more frequently used by infantrymen during the reign of Shalmaneser III.

123 is probably an officer, as denoted by the mace he carries and his richly decorated garments. His fringed quiver strap is slightly unusual. He could be a *rab kisri* commanding archers or spearmen.

124 shows the more representative dress for Assyrian infantry archers of this date, save he is very likely again an officer as his helmet has a double row of 'crooks', or horns. The majority of archers at this time, apart from the *asharittu*, would probably not be issued with helmets.

125 is an archer levied from the subject Aramaean states of the Jazirah and Syria, though native Assyrian peasant, or *hupshu*, bowmen would be very similar. The man's straight hair, which hangs in thick bunches, and the small end-tassel at the back of his headband suggest that this archer is a Suhean. Ashurnasirpal II claimed the submission of Suhi. The land of Suhi, strategically situated on the lower-middle Euphrates north of Babylonia, had ceased paying tribute to Assyria in 882 B.C. and, with Babylonian help, had fought off two Assyrian campaigns, in 878 and sometime after 877 B.C. The latter campaign, though not decisively in Assyria's favour, brought Suhi to terms, and numbers of Suheans were settled in Kalhu.

126. NEO-ASSYRIAN CHARIOT 8TH CENTURY B.C.

This type first appears in the reign of Tiglath-Pileser III (745-727 B.C.). It is larger, heavier and rectangular in plan. This design makes better use of the sub-frame introduced in the previous century and described under 119. This chariot could now accommodate as many as four occupants. The crossed quivers were replaced by fixed vertical quivers at the front corners of the cab. A more efficient harnessing arrangement enabled the elliptical draught-pole support to be replaced by a thong, still supporting a decorated panel (126a). Eventually this was dispensed with altogether. The wheels had become larger, now having eight spokes. The inner rim or felloe is seemingly separate from the outer felloe, to which it is attached by four quadrilateral pieces of metal, nailed on to the side of the outer rim. The nave and ends of the wheel spokes was metal sheathed. The outer rim was rectangular in section.

The actual body of the chariot, wheels, yoke and draught-pole were probably made from a variety of types of wood. The cab, especially that of the king, was often highly-decorated with embossed bronze (or gold in the case of the king) strips, metal rosettes, paint or inlay. This chariot, like one depicted in wall-paintings from Kar-Shalmaneser (Til-Barsip), has its cab covered in rectangular metal plates, as have been found in excavations such as at Nimrud (see 42b and cf. 170). The horse is armoured in a similar manner. The Til-Barsip paintings show the following colours on chariotry; crests, tassels and fringes attached to the horse harness were coloured red and blue (usually in alternating bands), chariot horses were blue (i.e. grey), red, brown, black and white. The cab could have a red and blue border, while the wheels were coloured yellow or white (natural wood?). Reins and leather equipment were reddish brown.

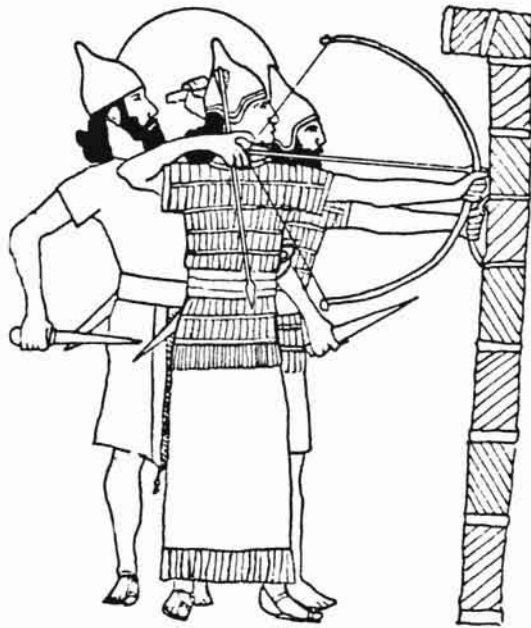
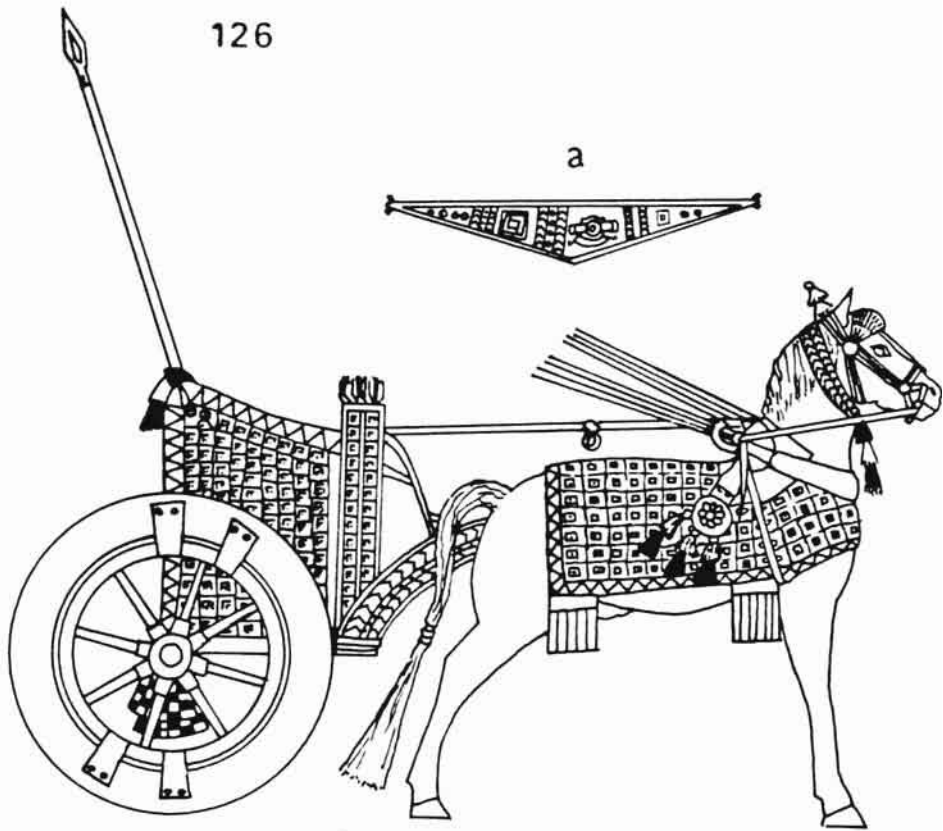
As with earlier chariots, four horses were probably used, although only two are shown. Apart from the evidence of the harnessing system, some scenes showing chariots being ferried across rivers depict four unharnessed horses following behind, and more crests than horses are shown. This type of chariot continued, with minor modifications through Sargon II's reign.

127. NEO-ASSYRIAN CHARIOT CREW, 8TH CENTURY B.C. (DISMOUNTED).

Charioteers frequently fought on foot at sieges. Here the chariot driver protects the chariot archer with the typical large siege-shield of plaited reed, while the shield-bearer continues his function of protecting the archer from high-angle fire with his round shield. Both have drawn their swords since they are emplaced close to the besieged town and are in danger of sallies from it.

The armour of charioteers became lighter throughout the 8th century, possibly due to changes in tactical function, but also probably for reasons of expense. Tiglath-Pileser III's reforms had resulted in the chariot corps losing much of its 'feudal', aristocratic aspect and the state was now bearing the cost of its equipment to a far greater extent. Here the lamellar coat extends to the upper thigh only.

126

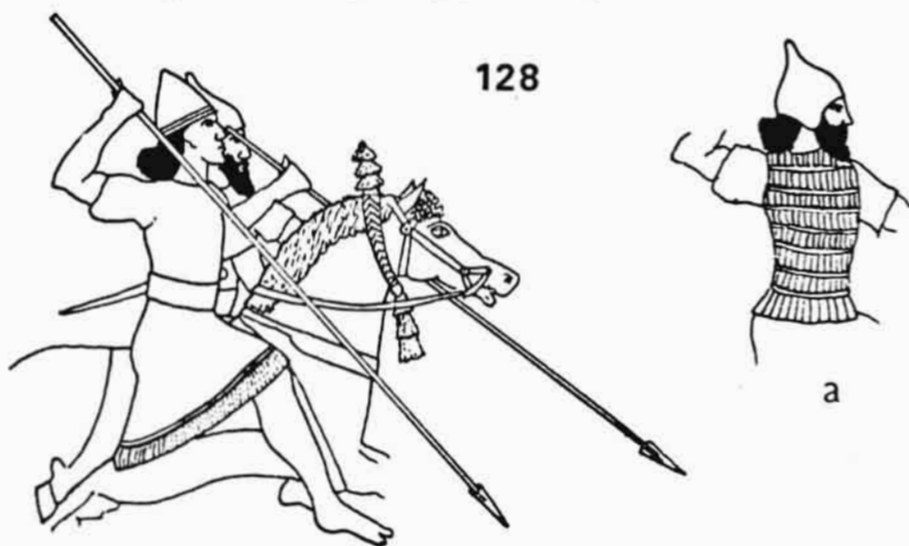


127

128. CAVALRY OF TIGLATH-PILESER III, 8TH CENTURY B.C.

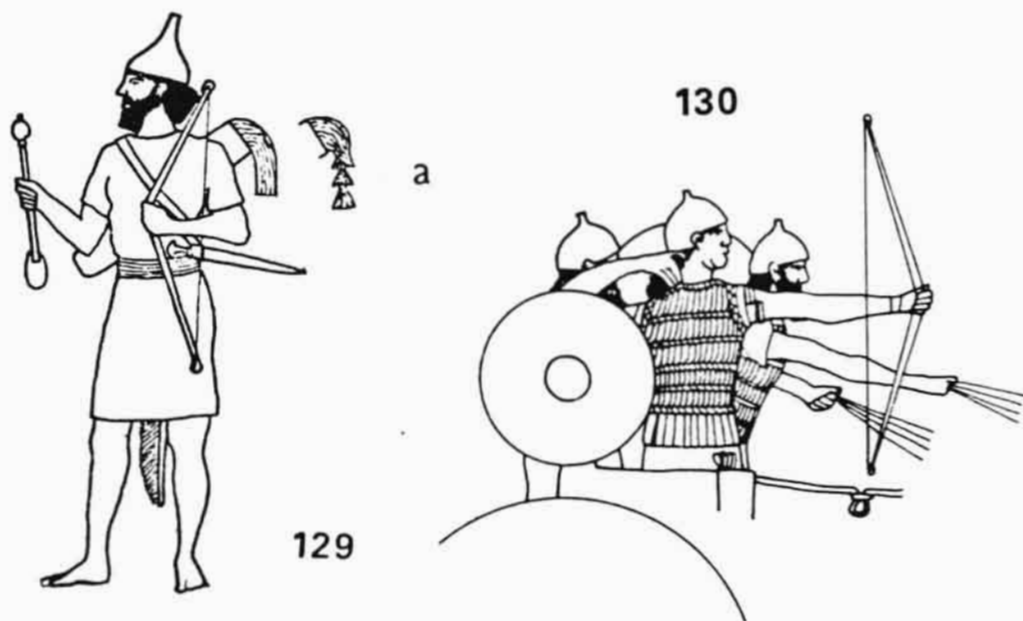
Surviving representations from Tiglath-Pileser III's reign do not depict mounted archers, but this is probably due to the chance of discovery and survival of material. Though riders are still shown in traditional pairs, both now control their own mounts. It is unclear if cavalry still actually fought in pairs or if this appearance is due to artistic convention alone, though it seems tactically probable that they did. Here the foreground rider sits on a saddlecloth of animal hide which retains its hooves for decorative effect. The neckband also appears to be solely decorative.

Armoured horsemen appear for the first time in the reign of Tiglath-Pileser III, (128a). This rider appears to be an Aramaean from his style of beard, though his equipment is Assyrian.



129. ARCHER OF TIGLATH-PILESER III.

This archer would appear to be of the same rank as 123 and, possibly, 132. He is undoubtedly an officer and is probably a dismounted cavalryman. He wears a ribbed waist-belt, plain tunic and plain wrap-around kilt (see figure 134). 129a shows a variant tasselled form of quiver-cover.



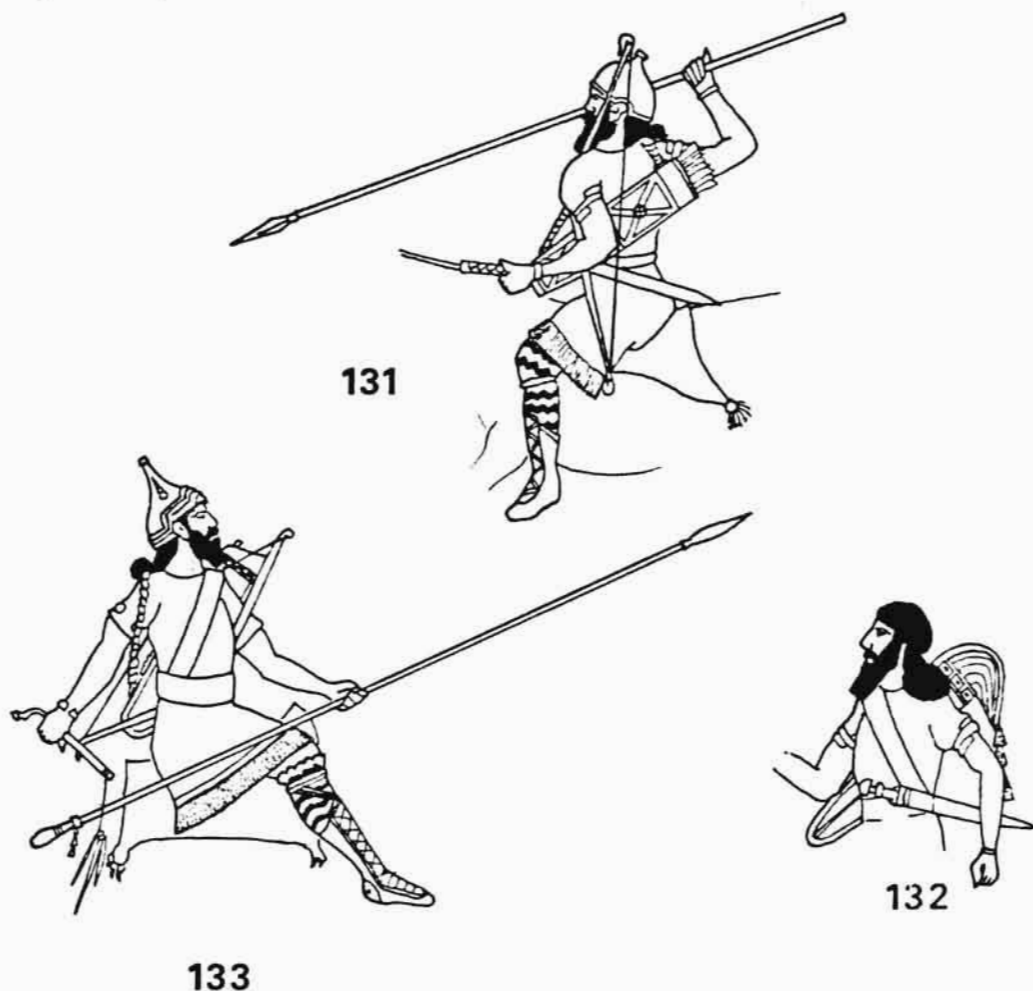
130. NEO-ASSYRIAN CHARIOT CREW, REIGN OF SARGON II

During the reign of Tiglath-Pileser II, the chariot crew had consisted of three, and occasionally, four. During the reign of Sargon II it was also usually three men, but by the reign of Ashurbanipal at the latest, the standard crew comprised four men. The three-man crew consisted of the driver, or *mugarrik*, archer, or *maru dumqu* and the 'third-man', or *tashlishu*, who acted as a shield-bearer and no doubt a spearman. Grooms were known as *mutal appati*. One reason for the increase in number of crew, and consequently strength in close-combat, may be the increase in the efficiency of cavalry. Cavalry were making the chariot ever more redundant in all but shock action, in which the chariotry now specialised. This in itself might indicate somewhat the limitations of cavalry in this respect.

131, 132 & 133. NEO-ASSYRIAN CAVALRY, REIGN OF SARGON II

These figures are based on the reliefs from Dur-Sharrukin (Khorsabad; 'Sargon's city') and paintings from Til-Barsip. 131 and 133 are spearmen, equipped additionally with the bow, and 132 is a mounted archer. The spear was quite long and thrust overarm, usually held near the butt. The Til-Barsip paintings depict cavalry such as 133, dressed in white or brown tunics, with a white fringe, red and blue banded socks, black and white patterned kilts and blue boots. The blue helmets probably represent iron. Bows are yellow and spear-shafts, red. Horse trappings, crests and tassels are red and blue. The saddle of 133, which has an animal's paw still attached, could have a black spotted pattern indicating the use of exotic animal skins. Horses could be black, white, grey, reddish brown or darker brown, and texts mention bay horses. Different breeds of horses were known such as the 'kusean' ('Kushite') and the 'Mesean' (from Iran), which were yoke-horses.

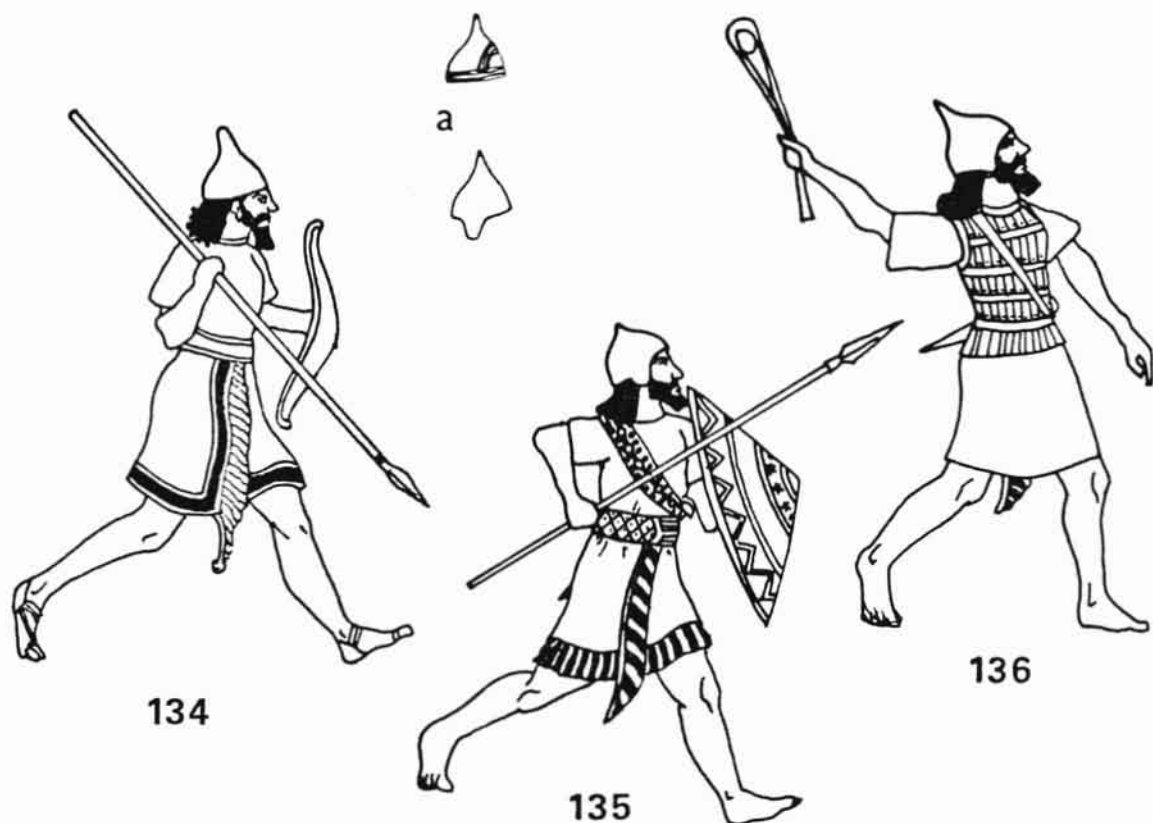
The quiver of 132, also served as a bow-case. The covers of some were decorated with a bird's head instead of a tassel.



134, 135 & 136. INFANTRY, TIGLATH-PILESER III TO SARGON II

Figure 134 is an unarmoured infantry spearman as they appeared in the reigns of these two kings. 134a shows variant types of helmet. At this time most infantry were still unarmoured, as were the cavalry. Figure 135 is an infantry guardsman of Sargon II. He carries a decorated circular, conical shield. These shields were simply a cone of leather, probably over a wicker base, with a sheet bronze central 'boss'. The Til-Barsip paintings show that clothing colours were predominantly red, blue or white, and shields could be decorated with alternate concentric bands of blue and red. Figure 136 is an armoured slinger of Tiglath-Pileser III. Like the other infantry, he is not yet equipped with socks and boots, later standard issue and coming into use at this time, together with lamellar armour.

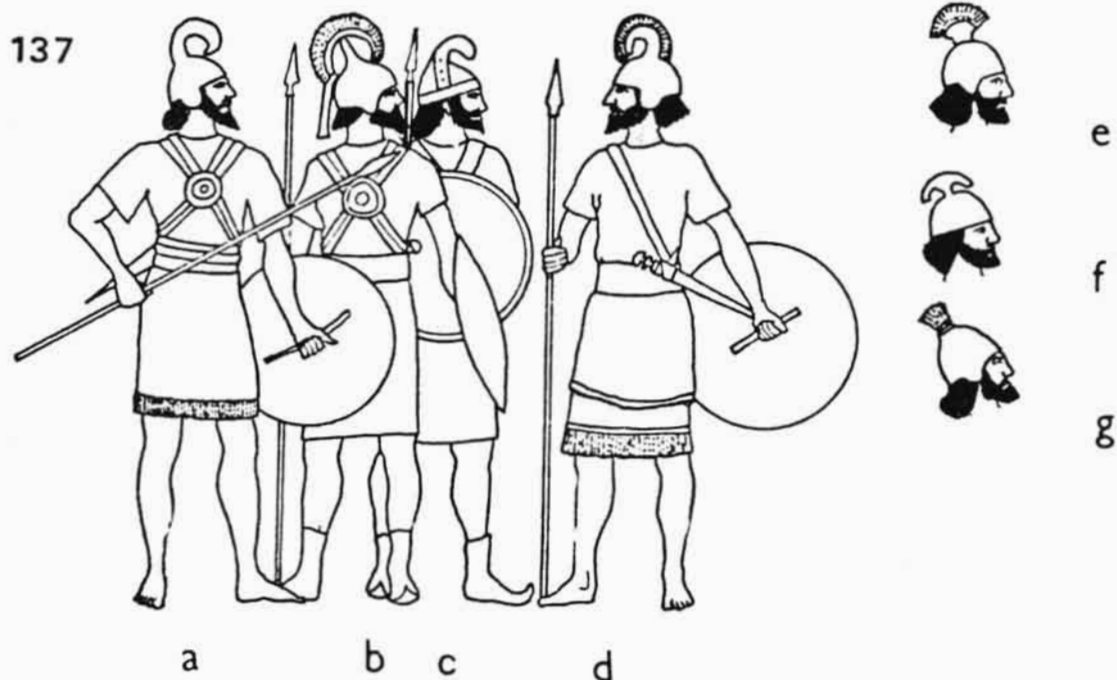
There were several types of shield known in the Assyrian army, though to which types the terms; *aritu*, *shallatu*, *kababu*, *salu* and *tukshu* refer is not clear. A large reed shield for archers was called *musheziabate* (from the word for 'cover'). It was probably like that in 127, and reeds were especially grown for its manufacture. Another item of soldiers' equipment was the *maza'u*, or water-bottle.



137. AUXILIARY TROOPS OF TIGLATH-PILESER III

The reforms of Tiglath-Pileser III turned conquered regions into provinces, from which troops could be called up as *sab sharri*, in the same way as Assyrians. These troops are from the Aramaean and Neo-Hittite provinces, and, at this time, retain some of their distinctive equipment. The helmets are derived ultimately from Urartian designs, which were used by the Neo-Hittites and, in Anatolia, by the Phrygians (Mushki). Figures 137b and c wear Neo-Hittite boots, and figures 137a and b wear *tuttiu*-baldrics and metal *irtu* plates (discussed under 149). 137e, f and g show yet more types of helmet. Helmet crests appear for the first time in Assyrian armies in the reign of Tiglath-Pileser III.

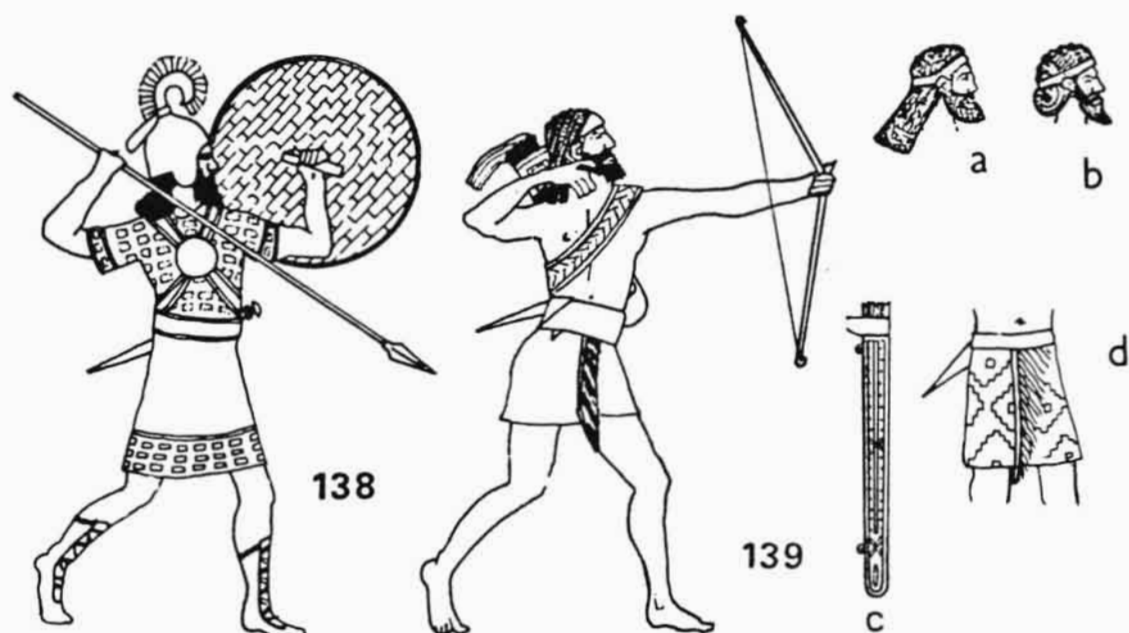
137



138 & 139. AUXILIARY TROOPS OF SARGON II

Figure 138 also wears a *tuttitu* and *irtu*, Urartian or Neo-Hittite style of helmet and a tunic decorated in a manner known in Urartu, and Neo-Hittite states. He carries a sword, (*namsaru* or *patru*), and the wickerwork construction on the inside of his shield is clearly visible.

The archer, 139, may be an Aramaean. 139a and b show other associated hairstyles of these auxiliaries, and 139d the type of patterning that occurs on their kilts. 139c is a long, narrow form of quiver used by these troops. Arrows were known as *mulmullu*, *qanu*, *shillakhu*, *shukudu* or *ussu*.



Aramaean light-troops, such as Gurraya, Itu'aya and Ru'a, were much used as lookouts and for securing lines of communication. Troops from mountainous regions to the north-west of Assyria may have been naturally good at operating in difficult terrain.

Assyrian auxiliaries and other personnel, shown wearing feather circlets on some reliefs, are not auxiliaries from Philistia, but Assyrian priests and soldiers partaking in a festival.

140. NEO-ASSYRIAN CHARIOT, 7TH CENTURY B.C.

This illustrates the chariot as it appeared in the reigns of Sennacherib and Ashurbanipal.

The dimensions of the cab were about 1.5m. in width, slightly less than 1m. high and about 1m. deep. 140b shows a plan of the chariot, and 140c shows a section of the wheel which is still as described under 126 except that the diameter has increased yet again, and could now be as high as a man. The rim of the wheel was now often studded with the rounded heads of nails driven into it. This would improve grip and strengthen the attachment of the outer rim to the inner rim. The dimensions and the open back are confirmed by the reliefs of Ashurbanipal's lion-hunt, showing the rear closed by a large shield, secured by straps to the cab sides. This is shown being carried on the back of a servant during the preparation for the hunt. Ordinary war-chariots had dispensed with such rear protection at this time.

The draught-pole disappears under the cab and probably continues to the end of the cab for strength of construction. The pole is further reinforced by a curved rod connecting it to the top of the front of the cab. The axle was set at the extreme rear of the cab, under the floor.

The chariot was drawn by four horses as revealed by a frontal view of the yoke (140a) as it appears in reliefs. The horses are protected by a form of textile armour. The reliefs of the battle of the Ulai river from the South West palace at Nineveh show the armour in some detail. Each is equipped with a large cover upon his back, perhaps of thick felt or leather. It is secured at the rear and top, and lappets hanging down at each side give some protection to the legs while not impeding movement. The neck and chest are covered up to the ear by a thick section secured to the back-cloth and along the back of the neck by a series of toggles. Other reliefs show the neck cloth scored with three lines, which could show that it was later made up of three overlapping sections giving greater freedom of movement. Such textile armour would have given adequate protection against spent or stray missiles and lessen the impact of direct hits.

The horse was secured to, and pulled the chariot by, a chest-band attached to the yoke, which had four curved and padded half-collars. Each collar had an attached chest-band. A second band passed under the chest, behind the fore-legs, but is sometimes omitted from reliefs.

Around the neck of each horse went a strap for a bell, no doubt to add its voice to the thunder of a charge for psychological effect.

Forward, and each side of the cab were positioned two quivers, apparently an integral part of the frame and not detachable.

141. NEO-ASSYRIAN CHARIOT CREW, 7TH CENTURY B.C.

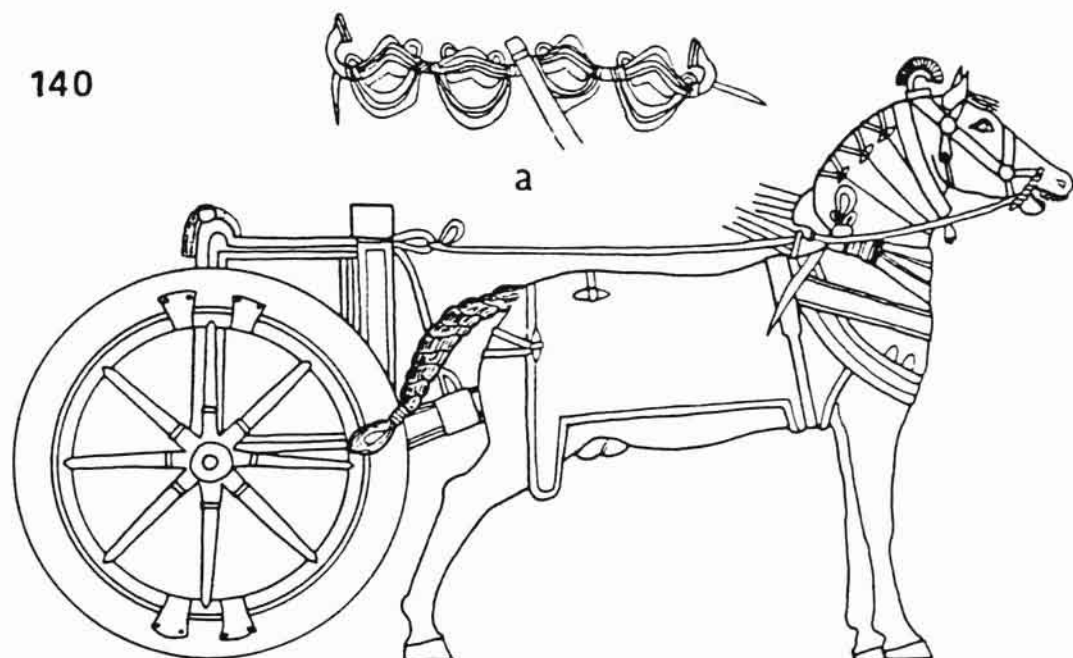
The crew shown here date to the reign of Ashurbanipal. The archer uses a composite bow and the shield-bearers carry ribbed shields. The shields were held high and tilted to cover both front and side of the driver and archer when advancing in the face of missiles. They also enable the rear to be protected in close combat or when withdrawing while being shot at. One of the shield-bearers must therefore hold the shield in his right hand. Each of the crew wears a waist-length lamellar corslet (often sleeveless) over a short-sleeved tunic reaching to the knee. Socks and boots were worn as standard issue in the Assyrian army and sometimes a sort of 'cummerbund' or sash was worn about the waist, under a thin leather belt.

The quivers contained not only arrows but short weighted javelins or darts known as *shittakhu*, or *siltahi*, (141b).

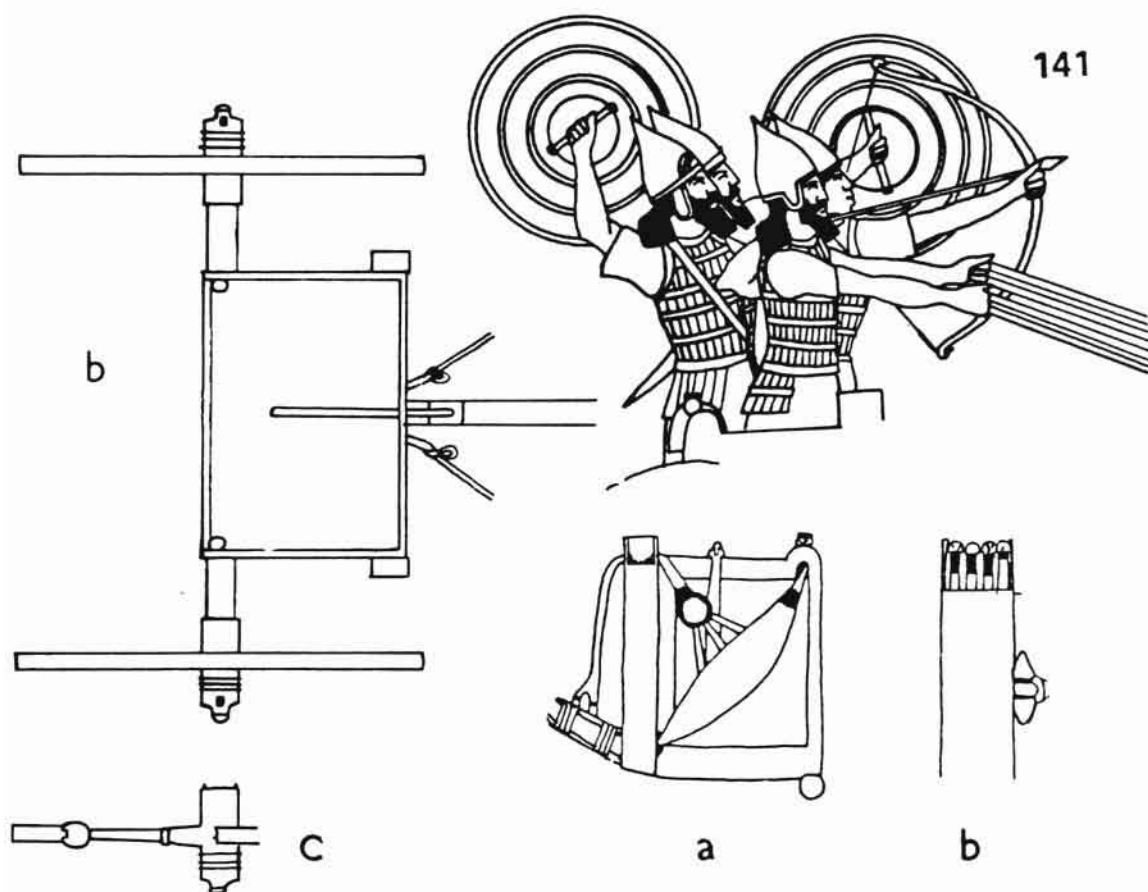
141a shows a bow-case, hung by means of three straps attached to a medallion, hanging from the cab.

The artistic record for war chariots is unfortunately incomplete for the reigns of Sennacherib and Esarhaddon. However, a recently discovered relief fragment from Nineveh depicts a four-man crew from the reign of Sennacherib. They are on parade and therefore not in armour. There are two shield-bearers with convex shields (see fig. 145).

140



141



142. NEO-ASSYRIAN GUARD CAVALRY LANCER, 7TH CENTURY B.C.

This figure depicts a *qurubuti sha pithalli* from the relief-cycle set up in the Southern Palace of Sennacherib ('The Palace Without an Equal') representing the Assyrian siege of Lachish in 701 B.C.

He wears the now standardised equipment of 'Assyrian' heavy units, comprising a helmet, short corslet, short-sleeved linen tunic, fringed wrap-around kilt, and boots with long socks. His sleeveless lamellar corslet has a complete fringe of leather pteruges, and his pointed helmet of polished iron, which has large, hinged cheek-pieces, is adorned with a bronze strip around the rim and a double row of crooks, possibly to indicate the wearer's rank.

For offence he is armed with both a heavy thrusting-spear, *azmaru*, and a short composite angular bow, *qashtu* (later known as the 'Akkadian bow', *qashtu akkadu*, to distinguish it from the Cimmerian or Scythian bow). The term *azmaru*, which first occurs during the second half of the second millennium, had by the time of the later Sargonids come to describe a heavy spear issued to both infantry and some cavalry. It was made of *e'ru* wood or *murrannu* (cornel or dogwood), a native hardwood noted for its straight growth, and appears to have been produced in two sizes from 2.5-3.5 metres long. Infantry appear most frequently with shorter *azmaru* and cavalry lancers with the longer version. The bow, when not in use, was carried in the quiver. Assyrian quivers were usually tubular during the 7th century and made of sheet bronze decorated in repoussé with horizontal bands and rosettes. This guardsman has a slightly unusual leather quiver which has clearly stretched to accommodate the bow. Quivers of this type are sometimes shown with covers decorated with a cockerel's head (no-doubt because of the similarity of a crowing cockerel's head and neck to the long, stretched, cover), fig. 142a.

A short iron sword is suspended from a wide baldric, decorated with metal rosettes, over the right shoulder.

It would appear that all *qurubuti sha pithalli* were usually armed with both spear and bow.

The horse-harness is generally typical of that issued to Assyrian cavalry units during the reign of Sennacherib, apart from the large, decorated collar which distinguished the horses of royalty and palace units. The horse's poll has been shaved for coolness and is protected from the sun by a bead brow cushion. A leather frontlet hangs from the browband and the top of the frontlet's point is decorated with a large, domed disc. Actual examples from Zinjirli were 5.2cm. in diameter.

The saddle of plaited leather is decorated at the corners with multi-coloured tassels. The breastband has banjo-shaped appliques of bronze or bone and seems to have secured the saddle in the absence of a girth, which is only rarely shown.

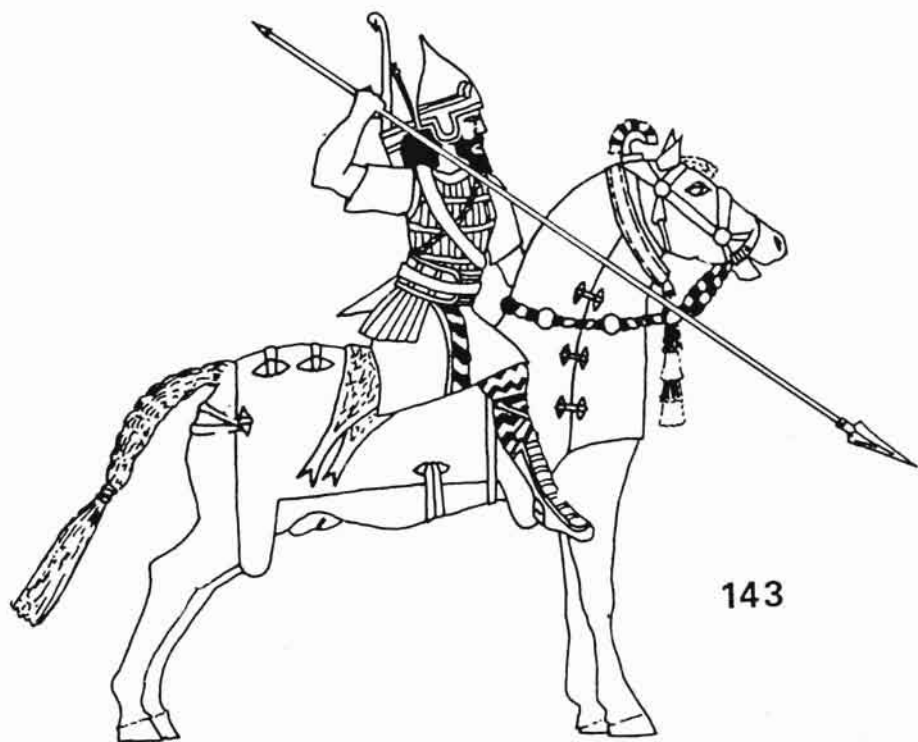
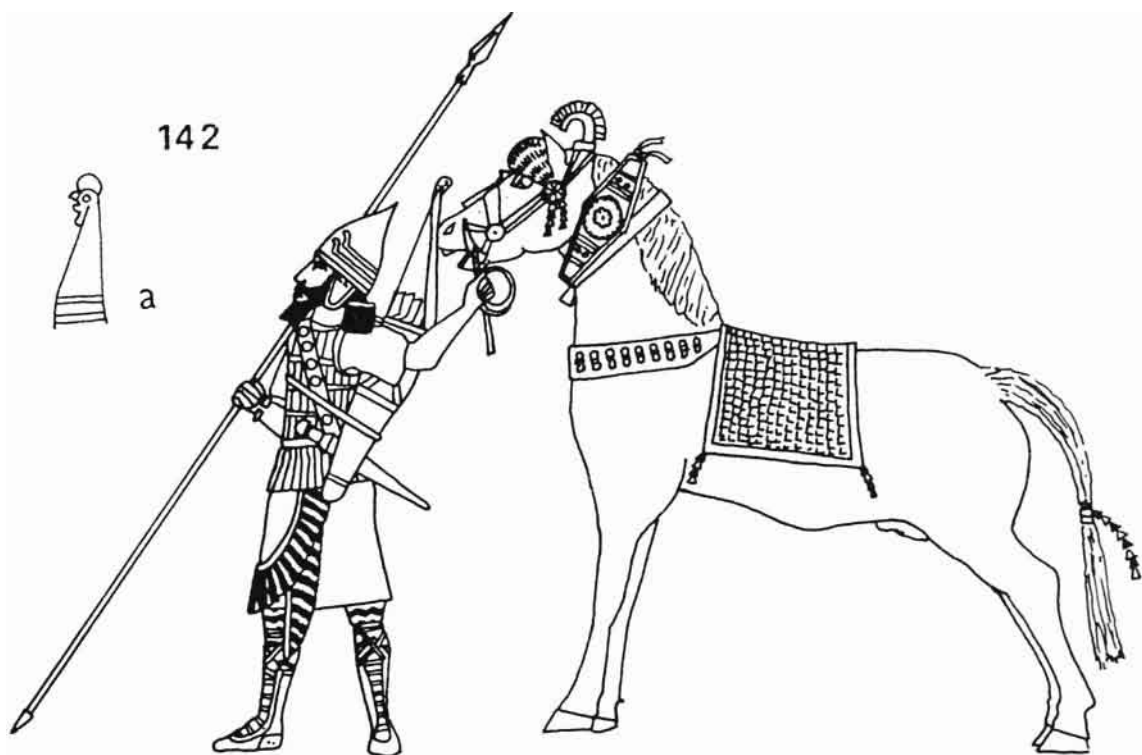
143. NEO-ASSYRIAN CAVALRY LANCER, LATER 7TH CENTURY B.C.

The *qurubuti sha pithalli* of Ashurbanipal's reign, and therefore presumably Esarhaddon's, differed very little in appearance from fig. 142, except that their helmets were more likely to have integral cheek-pieces. However, by 653 B.C. at the latest Assyrian cavalrymen are always shown in battle riding fully-protected horses.

Reliefs dating to the reign of Ashurbanipal show both cavalry lancers and archers riding horses protected by textile armour similar to that worn by chariot horses. Two basic designs are shown and also a few minor variations. The main difference being in the number and arrangement of the textile sections and the method of fastening. The type illustrated here is the most widely depicted in the reliefs. It consists either of a single large backcloth, or two halves, as suggested by the toggles securing it across the horses' rump. The backcloth is also secured under the tail and under the belly, the straps being single or double. Four rounded lappets provide some protection for the legs. Another section of cloth covering the horses' chest and throat is attached to the backcloth by toggles at the side of the neck. In what may be a later development, the backcloth continues around the horse's chest with no visible join, suggesting a one-piece housing which joined on one side of the neck only. Sometimes the backcloth is shown decorated with parallel bands around the borders.

It is interesting to note that the armoured crew, horses and weaponry of a four-man, four-horse chariot would be equivalent to four of this type of cavalryman, while dispensing with the vehicle. The development of this advanced form of cavalry may thus have hastened the redundancy of the chariot, being more economic and tactically flexible.

142



143

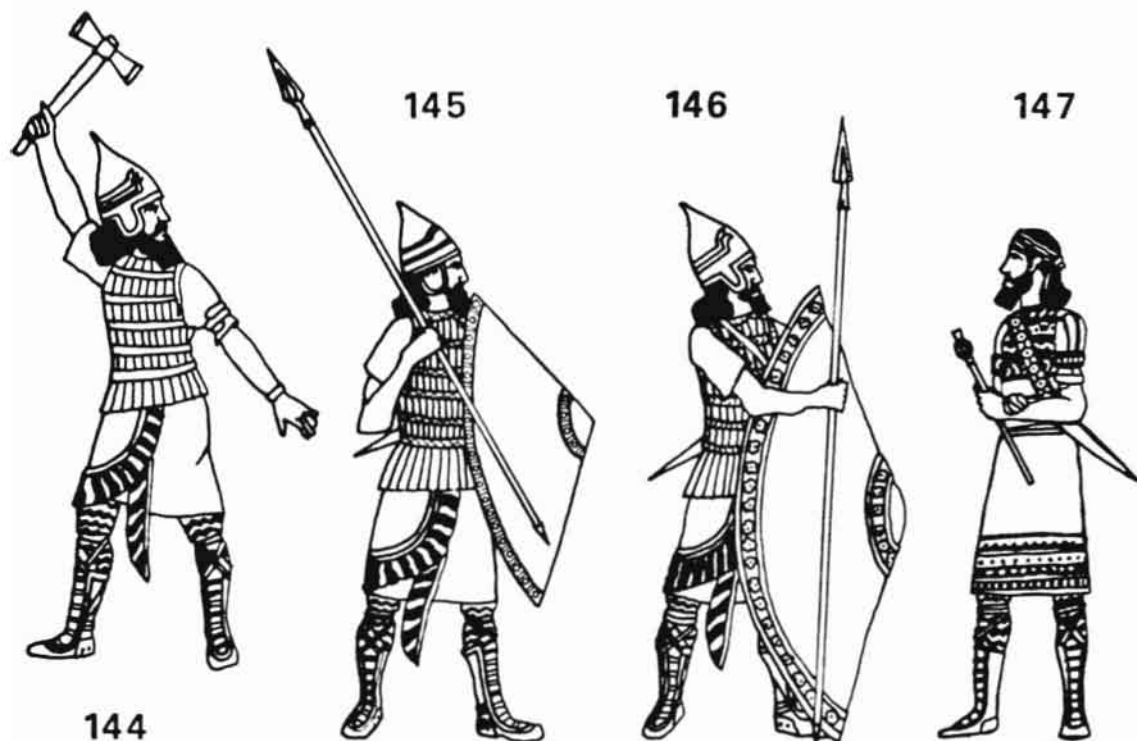
144. NEO-ASSYRIAN INFANTRY OFFICER, 7TH CENTURY B.C.

Again derived from the Ulai relief-cycle added to the decoration of the Southern Palace of Sennacherib by Ashurbanipal, this figure is based on the dramatic scene depicting the death of the Elamite king, Teumman, and his son, Tammartu.

This man is almost certainly a *rab kisri* or a *shaknu*, as indicated by his triple 'crooked' helmet, the quantity of jewellery, and his distinctive, double-bladed axe. By the 7th century B.C. Assyrian officers appear to have regularly exchanged their small, ceremonial maces (the traditional insignia of their rank) for this more practical battlefield weapon, possibly adopted through contact with the Scytho-Cimmerians. This was the only type of axe used by the Assyrians in battle, although large, two-handed, single-bladed axes are frequently shown being used by work-parties of soldiers engaged in wood-cutting.

This officer has a gold, spiral arm-band and a single wrist-band. He wears a standard-issue lamellar corslet, which has a complete fringe of 'pteruges' at the waist. Both his helmet and the lamellae of his armour could be of bronze rather than iron since bronze armour seems to have been highly-regarded still, being both lighter, rust-proof and more attractive when polished.

The fringed wrap-around kilt was universally worn by the regular Assyrian military from the late 8th century to the end of the Neo-Assyrian Empire. The partial, multi-coloured fringe seems to have been attached only to the right-hand side of the kilt's hem. The pointed end was kept loose, being passed over the belt or waistband to hang down between the wearer's knees. This detail is usually concealed by armour or wide metal belts worn over the waistband.



145, 146 & 147. NEO-ASSYRIAN ROYAL GUARDSMEN, 7TH CENTURY B.C.

145 is an infantry guardsman of the reign of Sennacherib (704-681 B.C.). He wears the standard issue lamellar corslet, short-sleeved tunic, wrap-around fringed kilt, and boots with long patterned socks. His pointed iron helmet, decorated with bronze strips and crooks, is typical of Sennacherib's reign, having large, separate hinged cheek-pieces.

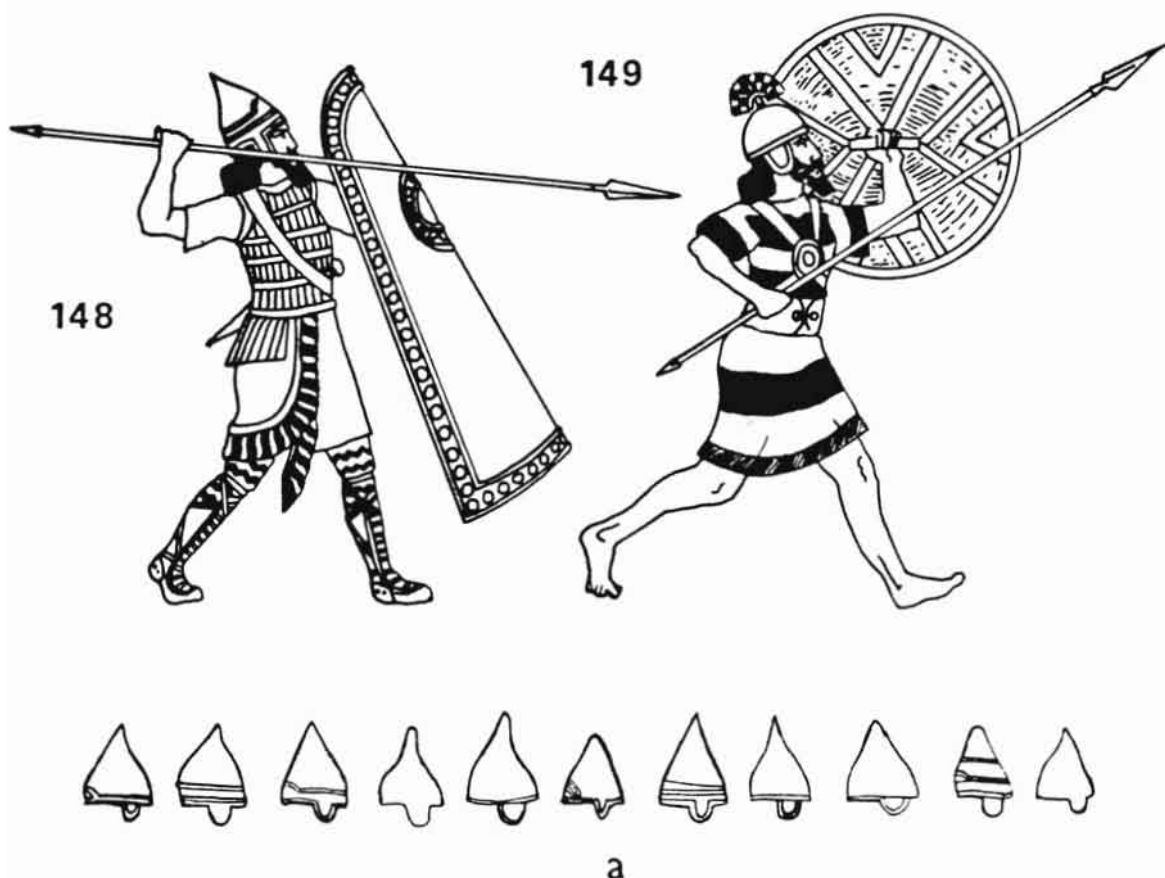
The large conical shield, made of bronze-coloured leather edged and decorated with large bossed rivets, was only carried by guardsmen. From this it appears that in Sennacherib's reign armoured spearmen did not exist outside the guard or *kisir sharruti*.

146 is an infantryman of the *kisir sharruti* of Sennacherib's grandson, Ashurbanipal (668-627 B.C.). His appearance, although superficially similar to fig. 145, demonstrates several changes of detail. The soldier's pointed iron helmet has integral cheek-pieces and a rim that is slightly lower at the back in order to give some protection to the neck. The most obvious change, the tremendous increase in shield size, is symptomatic of an increasing preoccupation with protection of the later Neo-Assyrian military and reflects a desire to minimise casualties caused by missiles. The change to the larger shield probably came about following Esarhaddon's unsuccessful Egyptian expedition of 674 B.C.

Figure 147 is a guard officer in court dress with a highly-patterned tunic, cord headband and symbolic mace-of-office. Such officers were referred to as *sha hutari*, or 'staff-bearers'.

148. NEO-ASSYRIAN HEAVY INFANTRY SPEARMAN, 7TH CENTURY B.C.

Armoured infantry spearmen, apart from guards, do not appear until the reign of Esarhaddon, who greatly expanded the regular army. He wears a corslet with partial pteruges and a helmet with integral cheek-pieces. He carries a large, curved, round-topped shield of leather, bound with bronze. The shield is shown painted blue in the source. The considerable variety of helmets which could be worn are shown by 148a.



149, 150 & 151. NEO-ASSYRIAN MEDIUM INFANTRY SPEARMEN, 7TH CENTURY B.C.

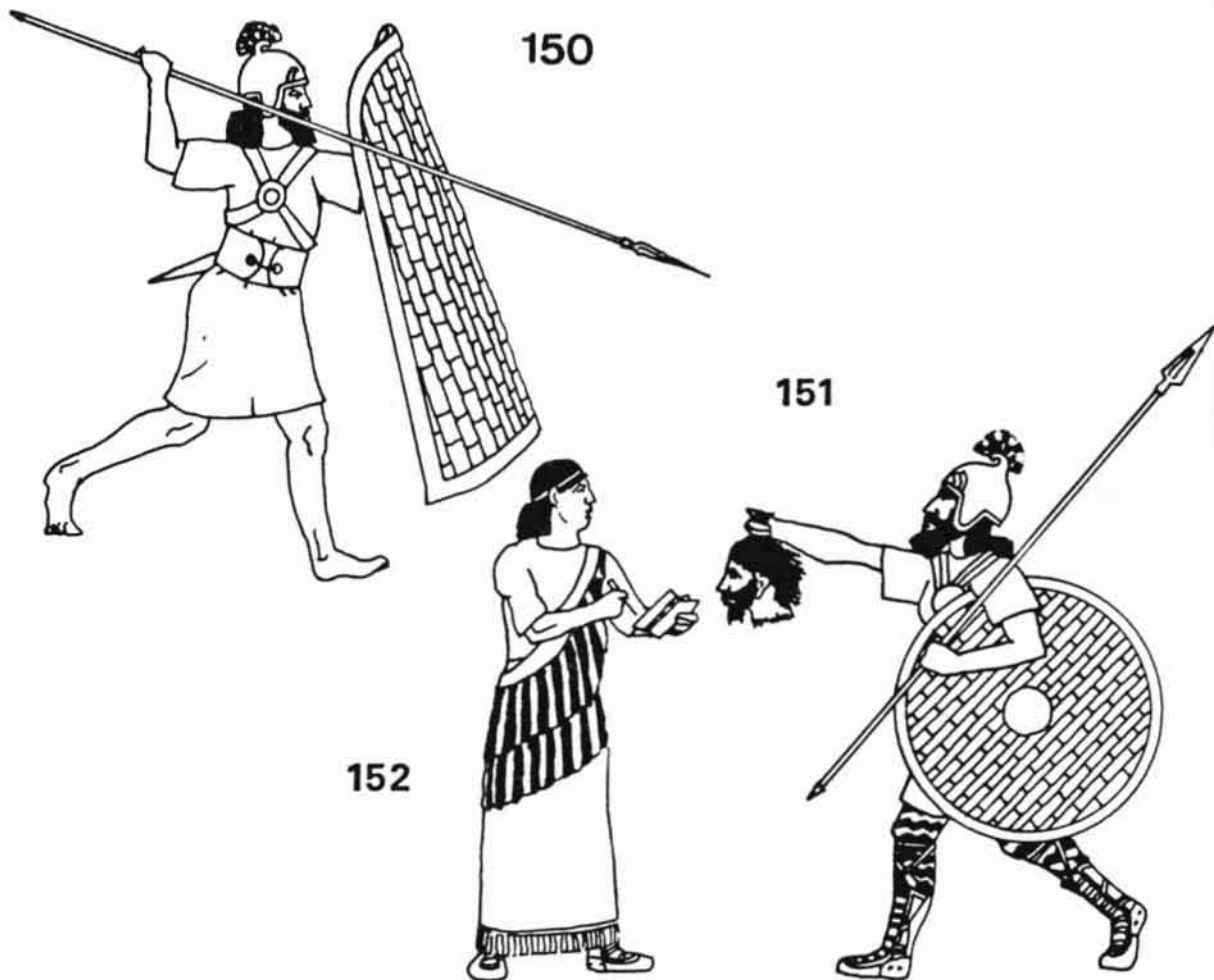
These figures show the later styles of dress and equipment of the Aramaean and Neo-Hittite soldiers first recruited into the Assyrian army by Tiglath-Pileser III and Sargon II during the 8th century B.C. All show strong Assyrianizing influences, and have to a great extent lost their regional and national details of dress, probably as a result of the issue of equipment from central *ekal masharti*, or arsenals, in metropolitan Assyria.

149 dates from the reign of Sennacherib and the bronze bowl-shaped helmet with separate cheek-pieces and upright 'pole' crest is a distinctive feature of this king's 'auxiliary' spearmen. This soldier wears a long tunic decorated with broad blue and red bands, as shown on a late-phase Neo-Assyrian wall-painting from the governor's palace at Til-Barsip in northern Syria. His helmet crest is similarly chequered red and blue. Over his tunic he wears a wide bronze belt at the waist, a *tuttiu*/baldric to support his short iron sword, and a large bronze *irtu* to protect the chest. It is possible to identify several forms of *irtu*, the simplest being a large, flat round plate, the more elaborate examples, as shown here, having a prominent central domed boss and curled-over rim. The man's round shield, carried by a central handgrip, was made of woven reeds tied with leather or reed binding on the inside and bound by a bronze rim. The shield's face, often shown with a central bronze boss, is shown in fig. 151 and has the characteristic 'building-block' effect which was produced by the interweaving of a thick reed facing some 5cm. thick. Faces of such shields were usually painted a solid colour, red being common.

150 & 151 are soldiers of Ashurbanipal's army. Both soldiers' helmets are of iron inlaid with bronze and have integral cheek-pieces and crest-holders. The pictorial sources of this king's reign indicate that most units of medium spearmen were equipped with a reed-work version of the new, large body-shield (cf. fig. 148). Records of the later 7th century mention the large-scale, deliberate planting of reeds along the Tigris for shield manufacture.

Some companies of spearmen retained the older form of round shield, however, either because it was traditional to their areas of recruitment or because of Ashurbanipal's particular reverence for Sennacherib's memory.

151 wears the boots and long socks of 'Assyrian' soldiers, and is either an officer, or more probably belongs to an elite company of the *kisir sharruti*, as is possibly indicated by the double-crooked helmet. All these warriors are armed with short iron swords slung from a baldric forming part of their *tuttiu*.



152. ASSYRIAN MILITARY SCRIBE

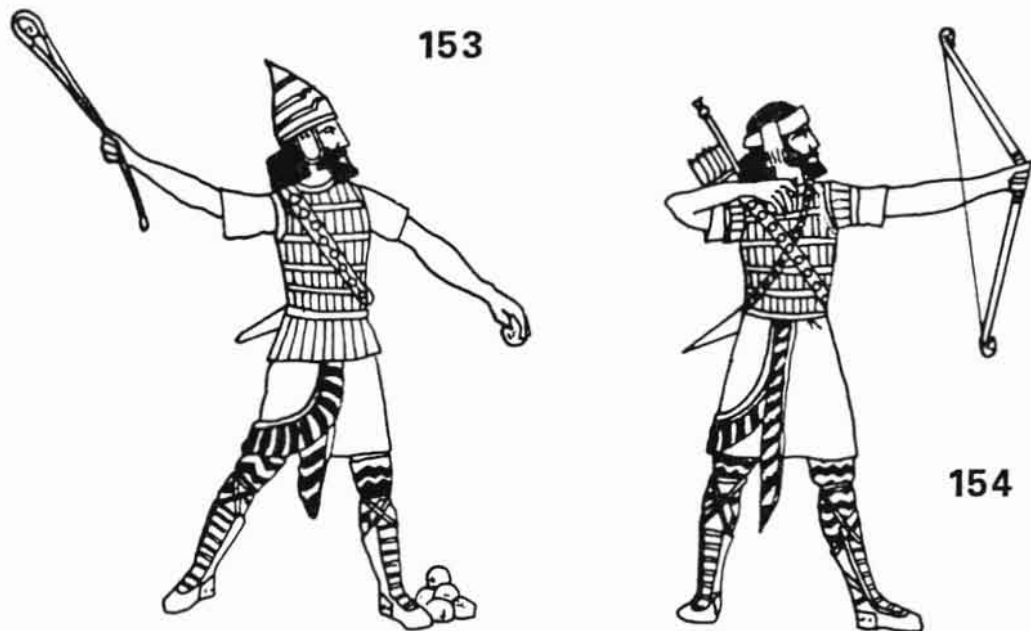
This scribe appears in court dress, though others are shown in more practical clothing like 147. His long, fringed robe is belted at the waist and a multi-coloured, fringed shoulder-band is wrapped around the body. Such fringes could be coloured alternately in blue and white, or be red overall. The basic garment was white.

Scribes are usually shown in pairs, making lists of captured equipment and other spoils of war, as well as recording the names of soldiers. One scribe wrote in cuneiform on a clay tablet, while the other wrote on either a wax writing-board using a stylus, or in ink on papyrus. It is even possible that some of these scribes are in fact war-artists, making sketches in preparation for the detailed battle-reliefs that would be made for the king's palace.

All matters concerning the preparation and conduct of a campaign were attended and recorded by scribes. Detailed reports were required by rulers, and military organisation depended on written records in order to function efficiently. Such documents were stored in archives together with diplomatic correspondence. This arrangement applied in the Near East for most of the period covered in this book. The durability of these tablets and the fact that they are devoid of the kind of exaggeration and propaganda found in royal annals (which would be pointless and counter-productive in bureaucratic records), make them invaluable sources for reconstructing military organisation.

Couriers carried messages written on clay tablets, one source mentions such a message being found in a leather bag around the neck of a messenger who was apprehended.

Maps and plans on tablets were not unknown.



153 & 154. NEO-ASSYRIAN ARMoured MISSILE TROOPS, 6TH CENTURY B.C.

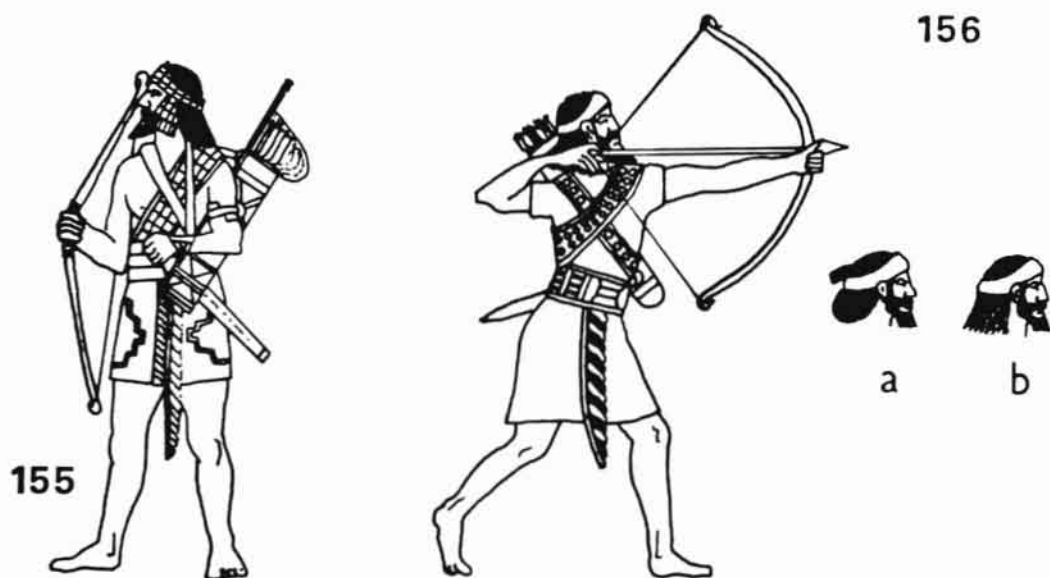
The slinger is taken from reliefs of Sennacherib, although those of Ashurbanipal would be identical. He wears the standard issue equipment of an Assyrian soldier, but some slingers are shown in reliefs with bare feet.

The large, spherical Assyrian sling-stones, consistently depicted in reliefs, are known from excavations at Lachish, a Judean stronghold stormed by Sennacherib. Examples examined during research for this book have an average diameter of 6cm., and weigh from 193 to 270gm., which should be compared to an average weight of Hellenistic lead sling-shot of around 65gm. These sling-stones had been roughed out of rectangular limestone cubes, with only limited smoothing and finishing, and some had clear evidence of shattering impacts.

The corslet of the archer is unusual in having short sleeves but no pteruges. During the reign of Ashurbanipal, heavy archers and slingers commonly wore a headcloth, like that of figure 154, instead of the iron helmet.

155 & 156. NEO-ASSYRIAN LIGHT ARCHERS

These soldiers are levies conscripted from subject peoples, and were employed to fight in their native fashion. Figure 155 is a Neo-Hittite from Carchemish dating to the reign of Sennacherib. Alternative headgear is shown in 156a. Figure 156 is an Aramaean levy of Ashurbanipal. 156b shows the headgear of Chaldean levies who would otherwise appear similar to these.



157 & 158. BABYLONIAN ROYAL DRESS 8TH TO 7TH CENTURY B.C.

Figure 157 represents the Chaldean rebel, and sometime king of Babylon, Merodach-Baladan (Marduk-apal-iddina 721-710 B.C.), and 158 represents Nabonidus (Nabu Na'id 556-539 B.C.) last of the Chaldean dynasty which ruled the Neo-Babylonian Empire. He was an elderly man at the time of his defeat by Cyrus, and is shown here with a white beard. Both carry a staff of kingship and wear the conical Babylonian crown.

159 & 160. NEO-BABYLONIAN TROOPS 7TH TO 6TH CENTURY B.C.

Figure 159 represents a Babylonian guardsman of the 7th century B.C., and like most native Babylonians (troops from Akkad, as opposed to Chaldeans and Aramaeans), is quite 'Assyrian' in his appearance. He wears a helmet and lameller corslet of Assyrian type and a large, conical, leather shield as used by Assyrian royal guards (c.f. 146). He wears a simple, plain tunic and does without the heavier, woollen gear, socks and boots favoured in Assyria, where the climate was colder.

The troops illustrated in 160 are Chaldeans, levied by the kings of the Neo-Babylonian Empire. They wore short tunics, caps or headcloths ending in long tassels and simple fillets. 160a is an archer, representing the majority of Chaldean troops. These were available in large numbers, and in order to make them more effective in close-combat some were equipped with spears and shields in addition to the bow, as shown in 160b. Figure 160c is purely a spearman, equipped with a large body-shield, possibly made of woven reeds, similar to that used by Assyrian troops towards the end of the Assyrian Empire (c.f. 148 and 150).

Babylonian cavalry, depicted in Assyrian reliefs, appear to be very similar to 160b and c, but lack shields. Babylonian chariots would be similar to Assyrian types. However, the captured Babylonian chariots of Shamash-shuma-ukin have archaic crossed-quivers at their sides, and yokes for only two horses, so they may have been slow to match Assyrian changes in design.

157



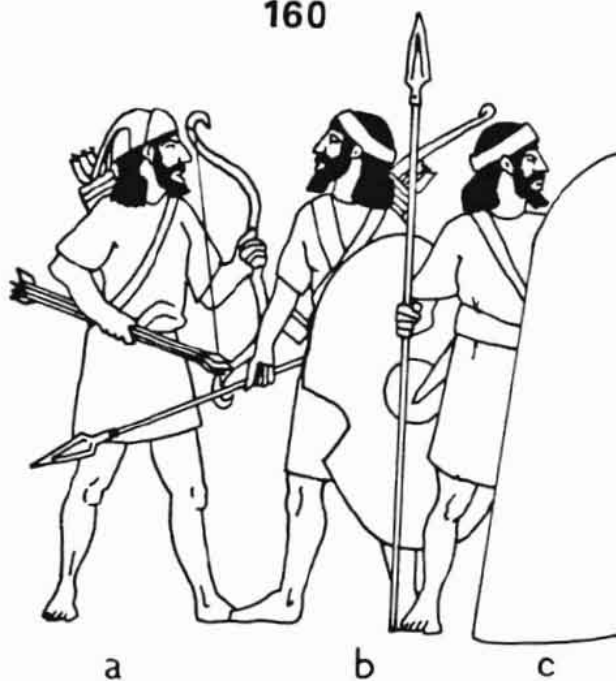
158



159



160



161, 162, 163 & 164. ELAMITE WARRIORS 7TH CENTURY B.C.

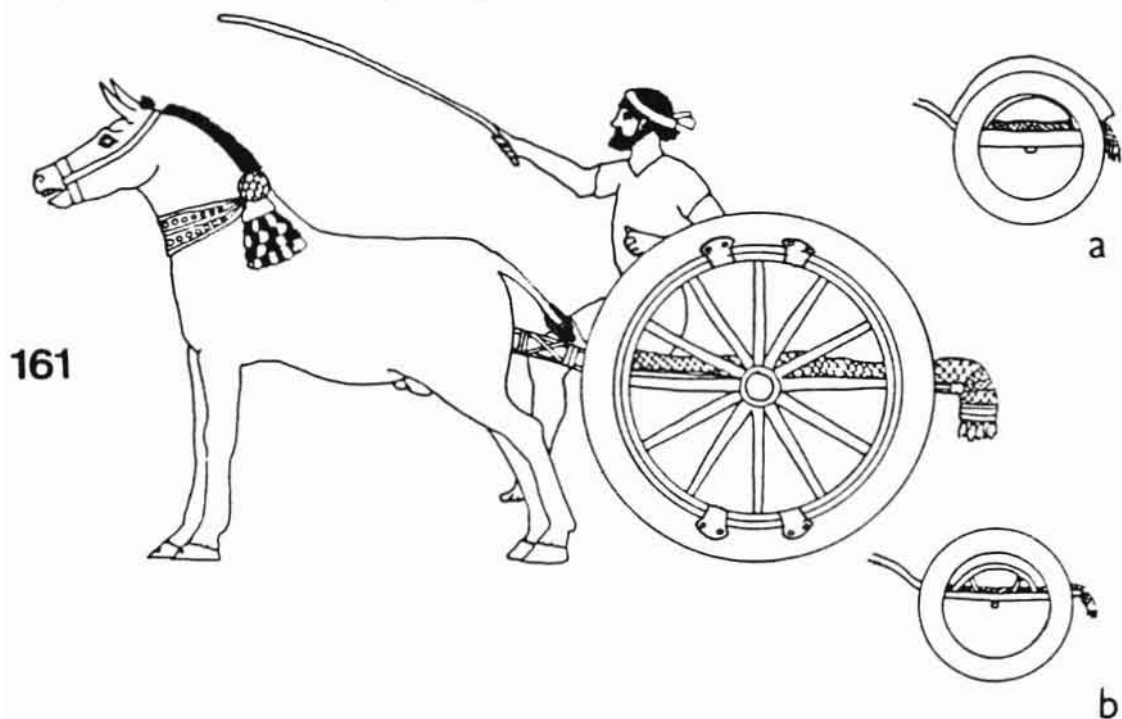
These illustrations are based on representations of Elamite troops depicted in the reliefs from the palace of Ashurbanipal at Nineveh, now in the British Museum. The reliefs concern the victory of Ashurbanipal over the Elamite king, Teumman, at the river Ulai. The Elamite chariot (161) consisted of a large, flat platform, which could have low, semi-circular sides (161a and b). It had two large, 12-spoked wheels and the axle was positioned beneath the centre of the platform. These chariots were drawn by two or four mules or small horses. The reliefs depict chariots being swept away by the river Ulai, and show front views of the yoke, clearly designed for four horses or mules. Other, overturned chariots show two or four animals. The crew consisted of a driver and up to three archers, who sat or knelt on the platform which was covered in a reed mat. The mobile, massed archers would be quite effective in themselves apart from any close-combat ability these chariots may have possessed. They may have provided a sort of battlefield transport for archers, and reliefs show large numbers making good their escape from the battle in this way.

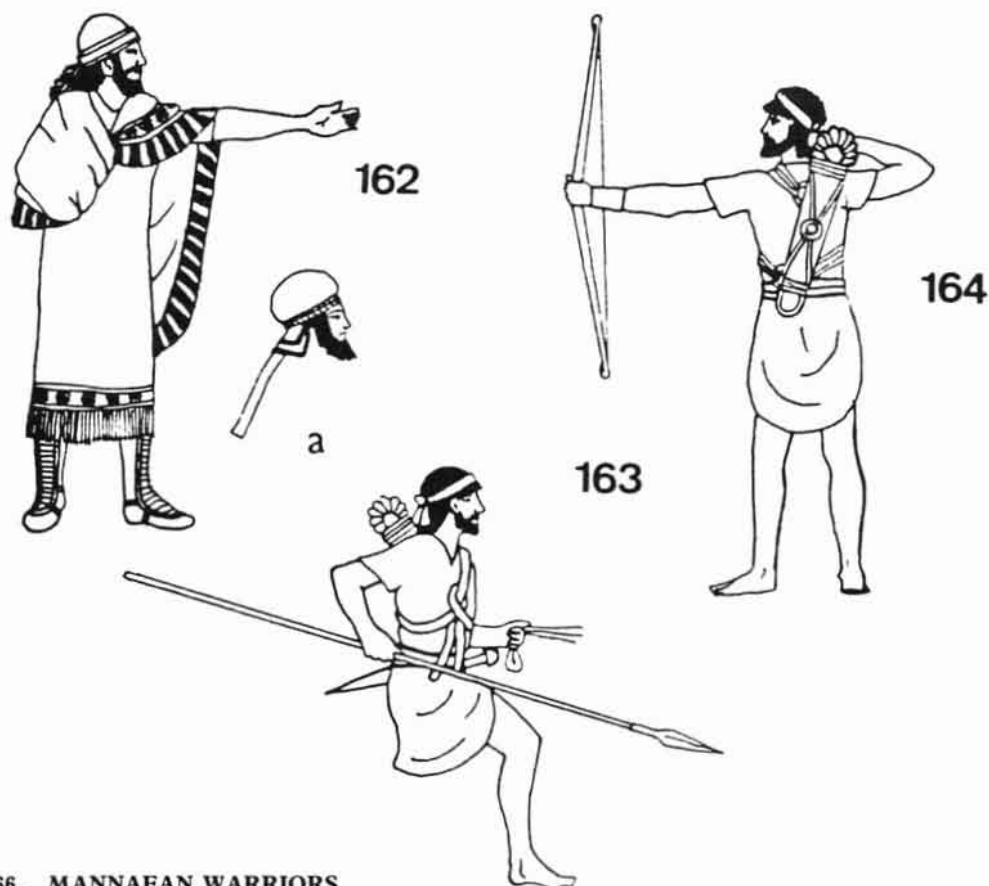
Figure 162 is an Elamite king or officer. He wears a long robe and a cloak into which he has tucked his right arm. There are two types of headgear which seems to distinguish officers or nobles; the cap worn by 162 has a feather hanging from the back, and 162a shows a bulbous cap with fabric neck guard and ribbon. The ordinary soldiers wear only a cloth headband.

The cavalry, 163, were identical in dress to the infantry, but carried a spear and bow. They ride on a larger breed of horse than those shown harnessed to the chariots. Like the Assyrians, they probably made a distinction between riding and draught horses, and employed a smaller breed of horse (attested later on in Iran) for draught purposes. The quiver, which appears to be of a standard type, may have been embossed leather, stiffened fabric or even partly of bronze. It was tied on, with the knot resting on the soldier's chest.

The infantry archers appear to have made up the majority of the infantry, and were quite uniform in appearance (164). Assyrian texts, however, mention troops bearing bow and shield and 'heavily-armed archers'. Such troops do not appear in the reliefs and their appearance is not known. Presumably the Assyrian artists did not have access to this information, while the scribes had verbal accounts and probably battle-reports at their disposal. Assyrian accounts also mention the nobles bedecked in silver bangles and riding in chariots with gold and silver trappings.

Elamite armies were effective and numerous, defeating the Assyrians on several occasions. They featured mobility, sound tactical sense, and reliably supported Babylonian rebels against Assyria. Together with Urartu and Egypt, they were a serious rival to the Assyrian Empire.





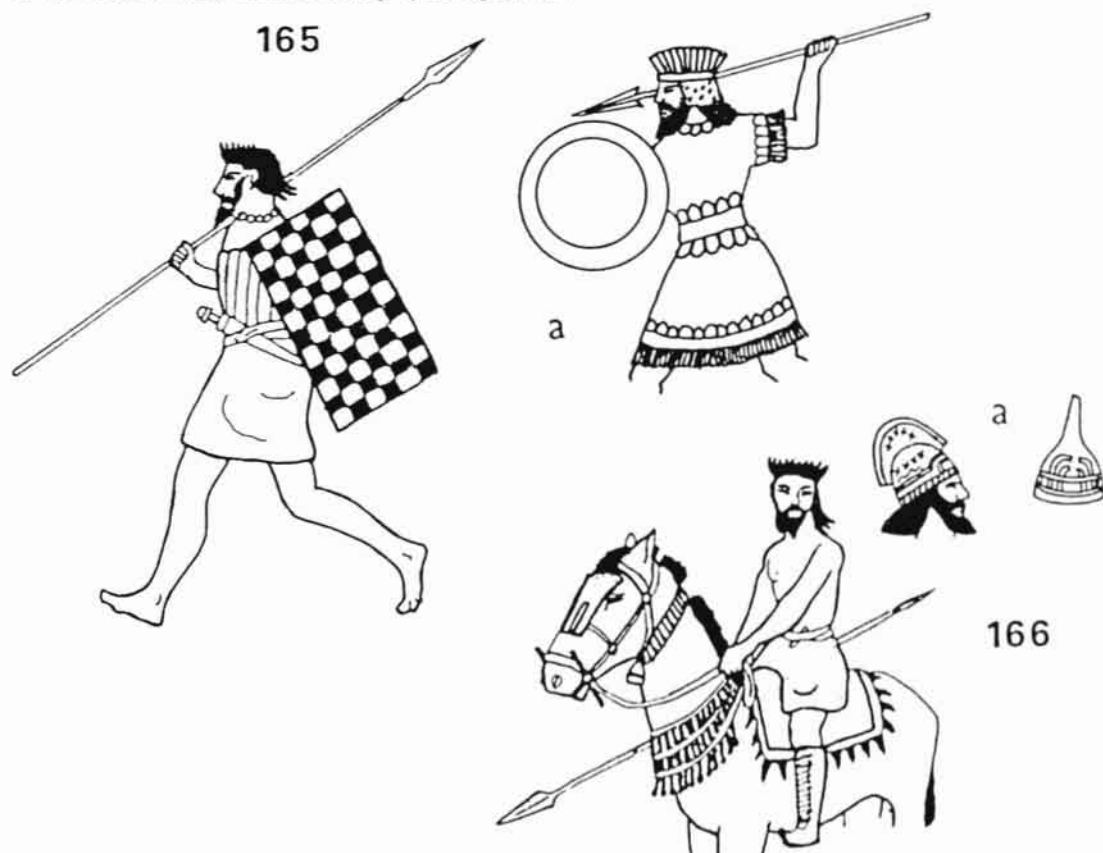
165 & 166. MANNAEAN WARRIORS

The Mannai inhabited the Iranian highlands directly to the east of Assyria, and many Assyrian campaigns were directed into this region. These illustrations are based on drawings on pottery dating to the 10th century B.C. and the archaeological finds from Hasanlu, dating to the end of the 9th century B.C. Ivory panels carved with representations of troops from Hasanlu are particularly informative as to military developments in North-West Iran at this time. Figure 165 is a spearman wearing some sort of textile body armour and carrying a painted wicker shield. 166 is a cavalryman. His horse is decorated with a bead-collar necklace with a bell attached to it, and a protective metal frontlet. 166a shows two types of helmet which could have been worn by wealthier troops, and may be compared with Urartian designs. Figure 165a is an infantryman from the Hasanlu ivories. The distinctive headgear worn by troops from this source is perhaps a 'crown' of folded textile, held on by a chinstrap, with a studded neck-guard. It is somewhat reminiscent of the later Persian 'tiara'. Metal, Assyrian-style helmets, sometimes with separate ear-flaps were also worn. Spears had socketed iron or bronze heads and side-arms consisted of swords, maces and small axes. The small round shield, which appears to have been convex with a wide rim, was probably made of leather or wood as no examples have survived. These shields are also shown on the ivories being used by the enemy troops, who are otherwise completely naked.

Archers depicted on the Hasanlu ivories show more variation in appearance. Some have curly hair while others have straight hair. Some wear turbans, and others wear studded fillets. Most appear to be dressed in the same type of tunic as 165a. They are often shown shooting from a kneeling position. Bronze quivers and bronze or iron arrowheads were used.

Cavalry on the ivories appear like 166, but wear tunics and helmets like 165a. The ivories also provide evidence of chariotry, which were crewed by two men and drawn by two horses. Crews and chariot cabs are not completely preserved, but the cab has a box-like profile, wider at the top than the bottom. The wheels have six spokes and the axle is fixed beneath the centre of the cab. A knob at the rear may be a shield boss or structural, and crossed quivers mounted on the side of the cab are shown on a metal plaque. The chariot crew consisted of an archer and a driver. The chariot horses resemble that in 166, but wear feathered crests.

These troops occur in battle scenes which show groups of chariotry, cavalry and archers operating together, and in one case two ranks of three cavalry operating in line.



167. IRANIAN WARRIOR 8TH CENTURY B.C.

Warriors and dignitaries wearing this style of dress in Assyrian reliefs represent peoples of the Zagros Mountains and North-West Iran, such as the Madai (Medes), Mannai, and warriors from regions such as Zikirtu, Zamua, Na'iri and Shupria. The shield is shown being used by the defenders of the city of Pazashi. It was probably made of reeds inserted through strips of coloured leather, in such a way that each reed passed through the strip twice, so that the strip would form a panel on the face of the shield. He uses an animal skin cloak, which is shaped to fasten over one shoulder and has a hole for one arm, to give some protection to his unshielded side. It would be a useful garment generally in these cold regions, (c.f. 73).

168. IRANIAN INFANTRYMAN, 6TH CENTURY B.C.

This figure is included in order to show the element of continuity of Assyrian and Babylonian practice into the early Persian period. Although largely outside the time limit of this book, the Archaemenid Empire represents the last great Near-Eastern military system, and has more in common with its Near-Eastern and culturally related predecessors than any later age. Also, before her rise to power, Parsumash or Parsuash, as the small Iranian region was known, was in contact with Assyria and Babylon, and for a time, tributary to Assyria.

Parsumash began her rise to empire, probably with the take-over of Anshan from the Elamites in the early 7th century B.C. The Medes and Elamites were absorbed in the early 6th century B.C. This was achieved under King Kurash (Cyrus I). The Babylonians referred to the Persian troops by a archaic term for the peoples of this part of Iran, calling them 'shield-bearing Gutians'.



167



168

The headcloth, tunic and dagger are distinctive items of Persian dress, but he wears Assyrian-style socks on his legs rather than trousers. He carries a large rectangular reed shield. It is interesting to note that combinations of spear and bow, and shield and bow, were already being experimented with by the Babylonians at the time of the Persian conquest, possibly influencing Persian practice. The basic Achaemenid unit was the *khatru* (a literal Median translation of *kisru*) commanded on Babylonian lines by *shaknu*. With the conquest of the East by Alexander, a complete cycle of military development comes to a close, to be replaced by another.

169, 170 & 171. NEO-HITTITE CHARIOTRY 9TH TO 8TH CENTURY B.C.

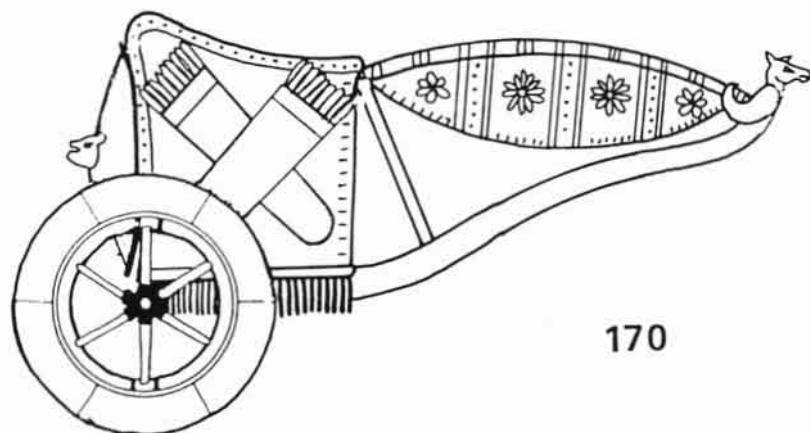
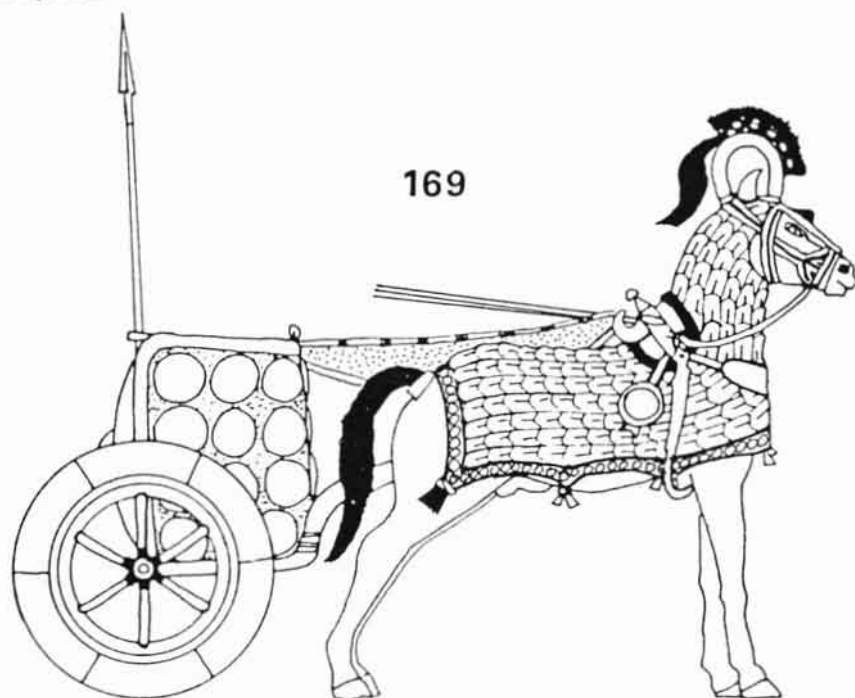
There are many representations of Neo-Hittite chariots; sources including reliefs from the sites of Carchemish, Malatya, Sakjagozu, Tayanat, Tell-Halaf and Zinjirli, and the ivory plaques of Syrian workmanship from Nimrud (which decorated furniture brought as tribute from Neo-Hittite cities). These representations date to the 9th and 8th centuries B.C. There are many points of similarity with Assyrian chariots, and the Assyrians may have been influenced by some aspects of Neo-Hittite chariot design.

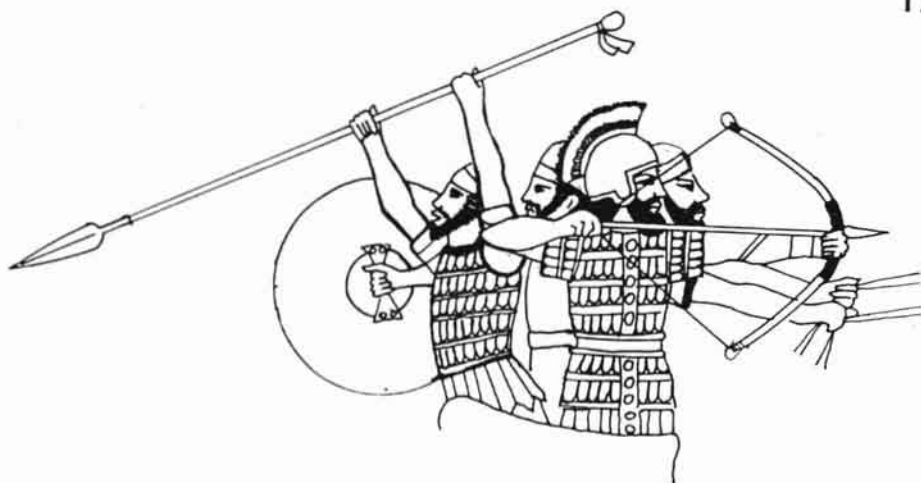
Neo-Hittite chariots exhibit some changes during the 9th and 8th centuries B.C. The axle was moved from beneath the centre of the cab to the rear. The number of spokes in the wheel was increased from six to eight (although the six-spoked type continued in use). The cab was originally curved at the front and changes to a deeper, and perhaps rectangular, shape. The number of crew increased from two to four, as demonstrated in a representation of a very heavy chariot on an ivory from Nimrud (170 and 171). It is also probable that the number of horses increased from two to four to enable the increase in weight and number of crew. Like many Assyrian representations, Neo-Hittite artists did not attempt to show four horses, usually making do with only one, (an artistic convenience which the authors themselves have found useful!). A captured chariot from Lachish, shown in an Assyrian relief, has a yoke for four horses and this number were in use in Egypt and Cyprus by the 7th century. Furthermore, some Neo-Hittite reliefs show the horse without a yoke saddle and with a pendant on the outer rein, characteristic of the outside horses of a four-horsed chariot which were harnessed in a different manner to the inner pair, until a new type of yoke was invented in Assyria in the 8th century B.C. The horses and crew of the 8th century Neo-Hittite chariots are often shown wearing considerable amounts of scale armour, but this was probably also available earlier. Crossed quivers on the sides, elliptical supporting rod for the yoke-pole and the shield hung at the rear of the cab, remained characteristic of the Neo-Hittite chariot throughout the period.

The cab of 169 is based on a relief from Carchemish. It is probably covered with low bronze bosses, unless this is a convention for a scale cover, long known in the Near East, later Assyrian chariots also being covered in bronze plates. The scale armour for the horse has the scales arranged in a different direction on the neck to enable movement. An Assyrian text mentions an iron *sariam* for a horse, captured from a Neo-Hittite kingdom. The chariot in 170 is clearly the origin of the Egyptian design shown in 40, and a similar hand-grip is present in the relief from Sakjagozu. A fabric panel was hung from the supporting pole, possibly to balance the heavy chariot cab.

The two-man crews comprised an archer and a driver. The armoured charioteers would resemble figures 115 and 120, while unarmoured chariot crew would resemble 172. A four-man crew, consisted of an unarmoured driver, an archer, a spearman, and another soldier, possibly a shield-bearer or another spearman. 171 is based on the crew in the Nimrud ivory plaque, but the Uartian-style helmet is taken from a relief from Zinjirli. The crew are well armoured. The spearman wears a short, scale corslet with what may be pteruges, but the shape suggests a row of large scales like that shown in 41a. The scene makes it quite clear how the spear was meant to be used. Its size and the knob at the end suggest that it is more than just a javelin. It would be useful to fend off cavalry or infantry who were attacking the vulnerable rear of the chariot, in the same way as reliefs show it being used against lions in hunting scenes.

Neo-Hittite reliefs are more than 400 years later than the Hittite Empire, and do not constitute valid evidence for the appearance of chariots and troops of that time. They exhibit the influence of Assyria and Urartu, not present in the earlier period.





172. NEO-HITTITE GUARDSMAN AND OFFICER 9TH CENTURY B.C.

These figures are based on reliefs from the royal palace at Carchemish. These depict a file of soldiers equipped as 172a, and officers or nobles like 172b. These were probably a unit of elite royal guards. Further evidence for such troops could be the 3000 infantry of Pisiri of Carchemish, recruited into the army of Sargon II following the rebellion of Carchemish. He also recruited 50 chariots and 200 cavalry, probably also elite troops. Figure 172a wears a distinctive variant of the Neo-Hittite or Urartian type of helmet, which has two short 'horns' mounted at the front. They are probably low, bronze bosses. Both troops carry large, flat or slightly convex round shields, slung on their backs by leather straps. The faces of these shields may have been covered in sheet bronze, possibly with embossed decoration, as in Urartu, and may also have had bosses in the form of lions' heads, as shown fixed to the back of chariots (169, 170). 172a wears traditional Hittite-style boots. Weaponry comprised thrusting-spears and straight swords.



173 & 174. ARAMAEAN AND NEO-HITTITE CAVALRY 9TH CENTURY B.C.

The use of cavalry by Neo-Hittite and Aramaean states is attested by numerous references in Assyrian records and reliefs depicting cavalymen from Zinjirli and Tell-Halaf. A representation from Tell-Halaf is the basis for figure 174, and shows that cavalry were using shields, as they were also in Urartu and for a short time in Assyria. 173 shows a mounted archer. The list of forces at the battle of Karkar includes equal numbers of cavalry to chariotry in the forces of Hamath and Damascus, and this might suggest some connection between horsemen and chariot crews in the military organisation. Tactically, they were probably required to operate with the chariotry, as were Assyrian cavalry. The position of the shield in the Tell-Halaf relief indicates that it was either strapped to the arm to allow the hand to control the reins, or possibly slung on the back. The shield had a central boss, and the horseman completes his equipment with a helmet and short spear.

175. ARAMAEAN INFANTRYMAN, 10TH TO 8TH CENTURY B.C.

The majority of the infantry levied by the Aramaean and Neo-Hittite states were lightly equipped. This figure is a spearman, but archers and slingers were dressed almost identically, though lacking shields and wearing their hair as shown in 175a. Weapons were now made of iron, shields were probably of leather and clothing was made of woollen cloth, with simple decorative borders and fringes.

176. ARAMAEAN CAMELRY 9TH TO 8TH CENTURY B.C.

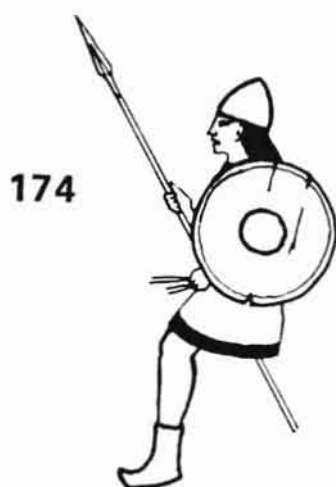
Representations of camel-riders are known from Zinjirli, Tell-Halaf and Carchemish. They are sometimes shown armed with a bow, so may have been used in a military role if only to protect caravans. Camelry were probably introduced by the Aramaeans, but were also found in Neo-Hittite states. At the battle of Karkar, 1000 camel-riders of an allied Arabian tribe were present, fighting alongside the Neo-Hittite and Aramaean contingents. The two camel-riders illustrated in 176 show the variation in appearance. Two types of saddle were used, one apparently a rectangular 'cushion' or pad of cloth, the other a sort of saddle-cloth and harness, which had straps for the rider to grip with his feet.

177, 178 & 179. NEO-HITTITE TROOPS, 8TH CENTURY B.C.

These soldiers are derived from reliefs at Karatepe, and so may represent the forces of the state of Que. One of the most interesting features of equipment is the helmet worn by 178, who is presumably a guardsman, or elite infantryman. This is very similar to the helmet worn by 172a, except that the crest has become larger. This is the ultimate development of the Urartian style of crested helmet and gives this soldier an almost 'hoplite' appearance, although Neo-Hittite representations pre-date the introduction of the hoplite panoply in Greece. In fact the Greeks may have been influenced by items of Neo-Hittite and Urartian manufacture as the Argos panoply would indicate. The cavalry are shown unshielded but using a thrusting-spear in an underarm manner, contrary to contemporary Assyrian practice. The archer is equipped with a narrow bronze belt, as would be used by many Neo-Hittite troops. He wears one of the many different types of 'turban' by which the various Aramaean tribes and North Syrian peoples may be distinguished.



173



174



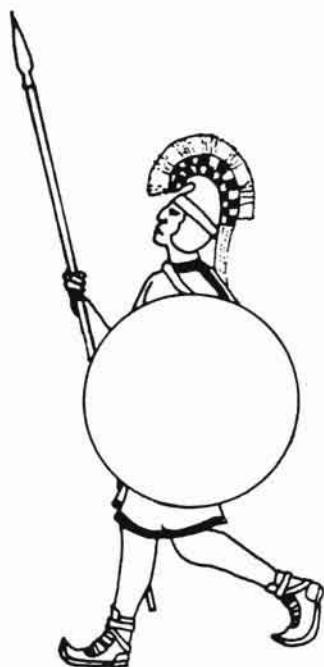
175



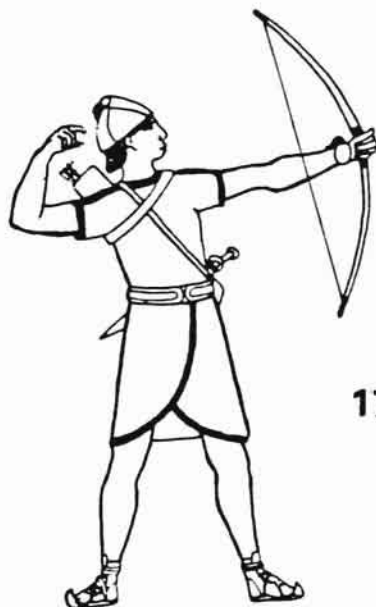
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177



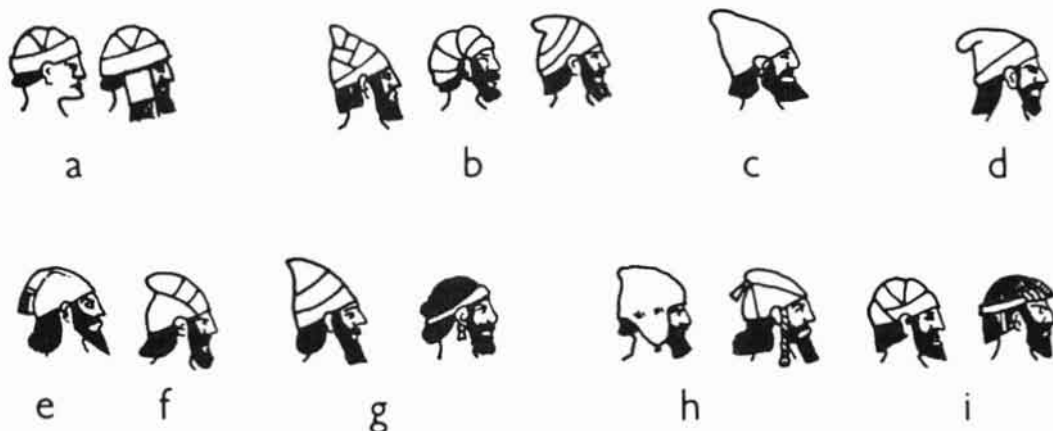
178



179

180. ARAMAEAN AND NEO-HITTITE HEADGEAR

By examination of foreign tribute-bearers in Assyrian sources and comparing them to representations from the various states of Northern Syria, Anatolia and the Levant, it is possible to establish their distinctive styles of headgear. Judean styles of wrapping a long, scarf-like headcloth are shown in 180a. 180b shows variant forms of Phoenician 'turban'. 180c was worn in Tyre. The cap shown in 180d is depicted being worn by Jehu of Israel on the 'black obelisk' of Shalmaneser III, and was also worn in Damascus, Katlina, Unqi, and Bit-Adini. 180e, which ends in a tassel, was worn in Hamath. 180f is another fashion from Unqi. The headgear in 180g was worn in Carchemish, and 180h is further headgear from Que and Sam'al. The hat on the right, was formed by tying-up the cheekpieces on top of the head. 180i shows two heads belonging to Mushki. The plaited forelocks on the right-hand head are allowed to hang over the front of the fillet.



180

181. JUDEAN SOLDIER 8TH TO 7TH CENTURY B.C.

This figure is taken from the Assyrian reliefs showing the sack of Lachish by Sennacherib in 701 B.C. This represents the equipment of a typical Judean soldier, and exhibits marked Assyrian influence, particularly in the helmet and shield. Sennacherib conscripted many Judeans into the *kisir sharruti* (royal army). In this corps they appear wearing Assyrian issue boots, socks and shield but retaining native tunic and headdress. This headdress, a sort of wrap-around scarf shown in 181a, could be worn instead of, or beneath a helmet.

181



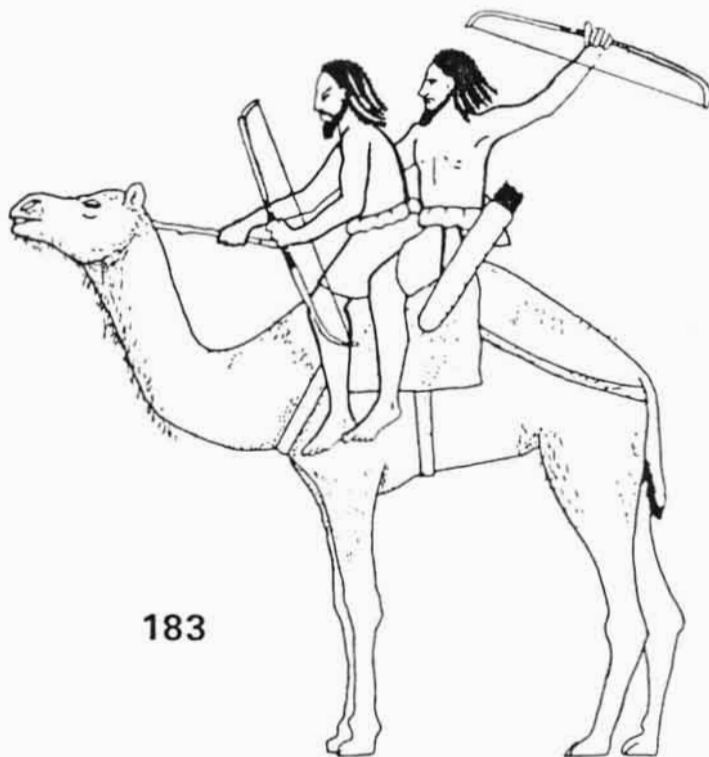
182

182 & 183. ARABIAN DESERT NOMADS

These included the Midianites, Amalekites and the later Arab tribes of the Isamme, Nabaitaya, Kidraya and Atarsamain which fought the Assyrians. The camel first appears as a mount for warriors at the beginning of the 1st millennium B.C. Before the 7th century it was probably more usual to find a single rider, since Assyrian representations of Arabs riding two to a camel may well be an indication of the success of the Assyrians' campaign of attrition. This involved poisoning of wells and garrisoning of oases, forcing the nomads to slaughter their camels and even to drink their blood.

Tribes were headed either by kings, or surprisingly, queens, as illustrated in 182. Organisation would be based on clans and an army would simply comprise a muster of all tribesmen acknowledging the authority of a particular leader.

When raiding, mobility and speed would require all warriors to be mounted, as they could always dismount if required. The main armament was the bow. Standard tactics consisted of hit-and-run raids in search of easy plunder and captives.



183

184, 185, 186 & 187. URARTIAN WARRIORS

Urartu was rich in metals, and became a centre for the manufacture of arms. The influence of Urartian designs can be traced over a wide area, extending beyond the confines of the Near East, at least as far as Greece. Items of Urartian manufacture were not only spread by trade, but no doubt also among the booty of the Cimmerians and Scythians, and the tribute exacted by Assyria. Bronze was used extensively, not only for weapons, scale corslets, helmets, shields, chariot fittings and horse trappings, but also belts and quivers. Iron was a cheap alternative to bronze, used for most tools and weapons and also to some extent, for armour. The amount of metal equipment available to the Urartians is indicated by the quantities of tribute recorded in inscriptions, and archaeological evidence from excavated citadels containing arsenals. Sarduri II of Urartu once received a tribute of 2000 copper shields from Kushtashpi of Kummuhu, and when Sargon II sacked Musasir, bronze crests, scale corslets, helmets and over 25,000 copper shields were among the booty. However many items may have been votive offerings, unsuitable for use in battle.

These illustrations are based on representations of Urartian troops in Assyrian reliefs, and on Urartian embossed bronze belts, quivers and armour as well as extensive archaeological evidence.

Figure 184 shows an Urartian spearman of the mid 9th century B.C. He wears a crested helmet of which there were many variants. 184a shows a type with a purely metal crest. A type depicted on the 'bronze gates of Balawat' dating to the reign of Shalmaneser II of Assyria, shows a helmet with a crest running directly over the crown, a type attested in other sources and by surviving examples. It is reminiscent of descriptions of the Karian helmet and possibly ancestral to it, ultimately influencing Greek designs. Around his waist, over his short fringed tunic, he wears a bronze belt, which could provide limited protection for the abdomen.

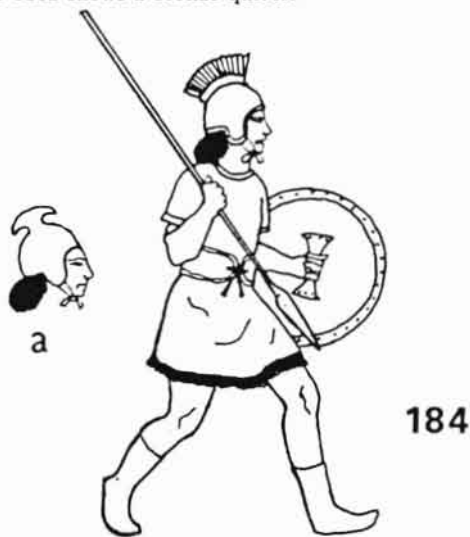
The Urartian chariot shown in 185 was similar to contemporary Assyrian types in general design, but lighter, being crewed by two men and drawn by two horses. The chariot and harness feature many bronze fittings, such as the bosses decorating the cab, the bells around the horses' necks and the frontlets (185a) protecting their foreheads. Heads of animals, such as horses, could be mounted at the end of the draught pole. Armament comprises the bow and spear, the latter fixed at the rear of the cab. Chariotry were probably provided by the nobility and high officials. Urartian engraved seals depict the king in his chariot accompanied by an umbrella-bearer, and a variant type of chariot with large looped hand-grips attached to the cab. The profile of this variant cab shows that its upper edge curves down at the sides and up at the front, and the wheels have eight carved spokes which are rather bulbous at the base.

Figure 186 shows an Urartian cavalryman, the cream of the Urartian army. He is equipped with spear and shield. Horse-archers probably also existed and Cimmerian mercenaries were probably employed, who would no doubt make extensive use of Urartian equipment.

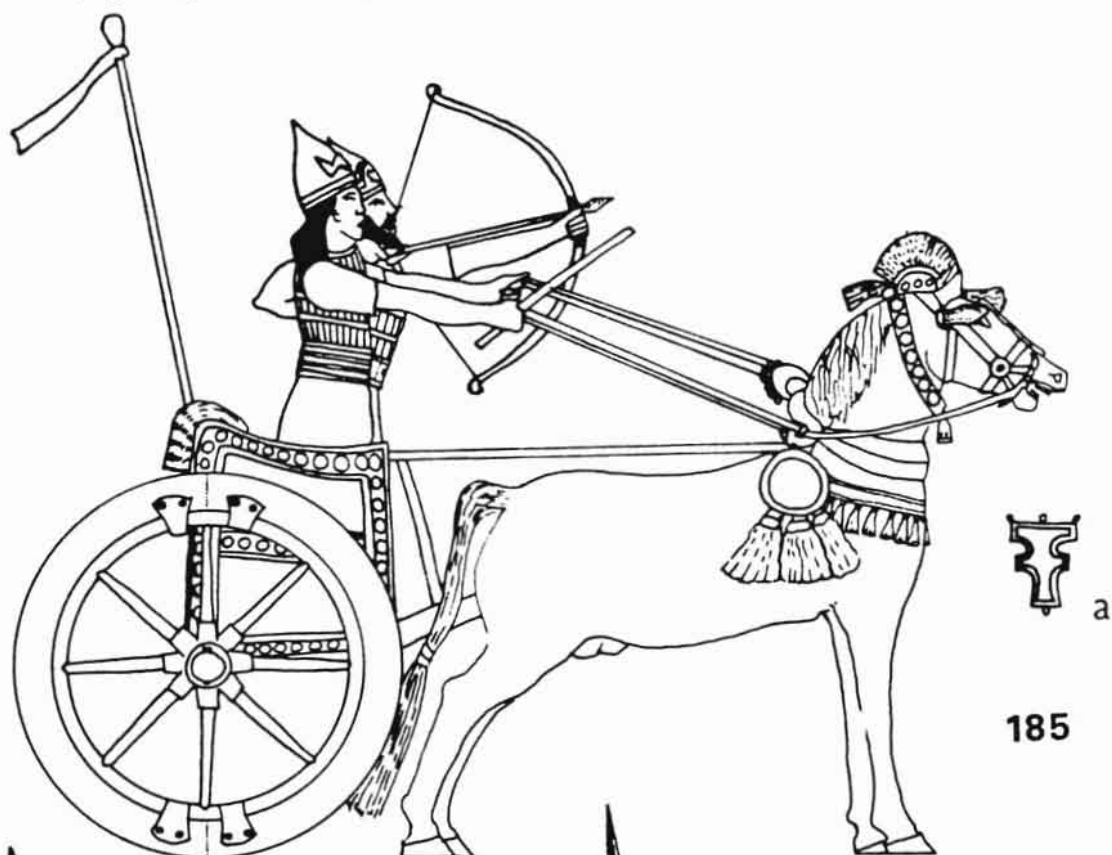
187 is an Urartian noble or officer. Both he and 186 wear boots and leggings and a short tunic, over which 187 wears a long, fringed kilt. Both are equipped with convex, embossed-bronze shields, probably backed by wood or leather. Decoration consisted of concentric rows of animals (187a shows a profile view). Shields with bosses in the form of the heads of dogs, lions, griffins and bulls were also used.

186, 187 and the crew in 185 are wearing scale or lamellar corslets. Scales were usually bronze, measuring 5cm long and 2cm wide, with rounded bottoms. They were assembled with the lacing exposed. These figures are all equipped with the conical type of helmet, which could be of bronze or iron, decorated with stylised thunder or antler symbols, or rows of serpents. They also wear variant types of bronze belt, which were often highly-decorated with embossed motifs.

Archers were similar in appearance to 184. Bronze quivers found in Urartian arsenals contained between 35-40 arrows. There were two main types of arrowhead, most of which were iron. The native type was flat and spade-shaped, with two barbs, while the distinctive, barbed, Scythian types were also available. Surviving bronze quivers are tubular in shape, two examples measuring 70 and 90cm in length and 10cm in width. Quivers could also be part bronze and part leather. Figure 186a shows a bronze quiver.



Uartian wall-paintings depict garments coloured red and white, with red or white borders. Chequered and striped patterns were used. Other colours appearing in paintings, which could have been available for clothing, comprise dark-blue, light-blue, black and reddish-brown.



188. CIMMERIAN HORSEMAN 8TH-7TH CENTURY B.C.

The Cimmerians, or Gimirraya, were forced from their homelands in southern Russia and across the Caucasus by their close relations, the Scythians or Ishkuzaya. In terms of dress and appearance these two tribes of nomadic horsemen appear virtually identical. Indeed, the Babylonians of the 6th century B.C. knew what we call the 'Scythian' bow as the 'Cimmerian' bow, and described tall, pointed hats (as shown on reliefs from the apadana at Persepolis worn by Scythians) to be typical 'Cimmerian' dress!

This man, tattooed in Scythian fashion, has acquired several items of equipment of Urartian manufacture, either through trade, plundering or through serving as a mercenary. He wears a bronze, Urartian helmet and uses a bronze, tubular quiver decorated with plain, horizontal, repoussé bands. The round shield is of leather with a conical bronze boss.

The Assyrians used both Cimmerians and Scythians as mercenaries and allies; when in Assyrian service one would expect their equipment to have a more Assyrian flavour, however. Some Cimmerians could even be found in regular Assyrian units of infantry and cavalry, when, like Aramaean, Neo-Hittite, Mannean and Chaldean soldiers in the Assyrian regular army, they would be impossible to tell apart from 'native' Assyrians.

The human head hanging from the horse-trappings has had the skull removed and only the tanned flesh preserved. According to Herodotus, these were the heads of enemies killed in battle, the best and most respected warriors having, of course, the greatest number.

The presence of Iranian mounted nomads at the destruction of numerous cities in Asia Minor and Mesopotamia is often attested by the discovery of numbers of the typical, small, trilobate bronze arrowheads at such sites. These arrowheads were cast in threes in small, portable moulds.

188

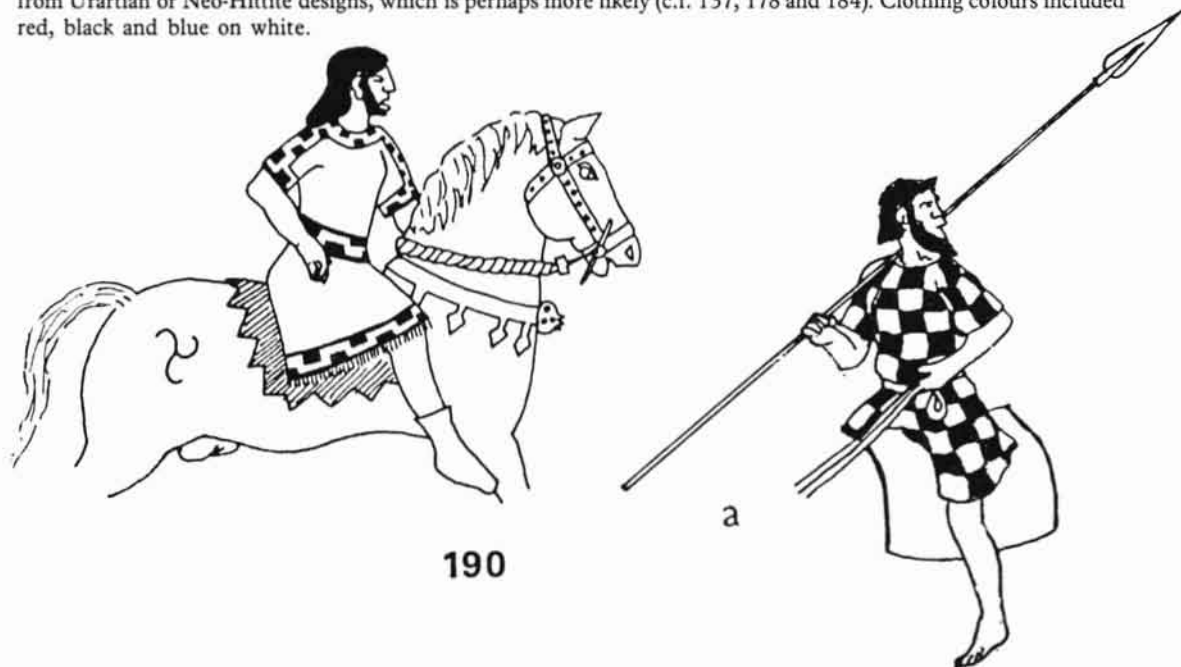


189



189 & 190. PHRYGIANS AND LYDIANS 11TH TO 6TH CENTURIES

These illustrations are based on representations on pottery, terracotta plaques and Assyrian sources. 189a is a Phrygian, or Mushki, as they were known in Assyria. A representation of an Anatolian emissary in the Assyrian Til-Barsip paintings depicts a style of dress that bears comparison with figures on the plaques from Pazarli. Tunics decorated with broad coloured or embroidered bands were worn. So were Assyrian-style socks decorated in the same way. The Phrygians were noted for their skill in this kind of decoration. The Pazarli plaques show what may be greaves worn over the socks, while the Til-Barsip painting shows boots. This figure wears the typical type of boot worn by many mountain peoples at this time and which was adopted in Assyria. Armament comprises a short spear and highly-decorated small round shield. 189b is an archer carrying what appears to be a bow case on his back. The helmet shown in the Pazarli plaque is often considered to be of Greek type, but it could equally well be derived from Urartian or Neo-Hittite designs, which is perhaps more likely (c.f. 137, 178 and 184). Clothing colours included red, black and blue on white.



Lydian cavalry are shown in 190 and 190a, Lydian or Karian infantry would be like the mercenary illustrated in 47. These horsemen are light cavalry. Heavy cavalry would be equipped as 47 but bare-legged. Again, embroidered bands and brightly coloured clothing are features of these troops. The horse in 190 appears to have a brand. According to Herodotus, Lydian cavalry were armed with long spears and were the most important part of the Lydian forces. They also seem to have been good and tenacious fighters. Lydian cavalry do not appear to have used the shield.

191 & 192. CYPRIOT WARRIORS 7TH CENTURY B.C.

These illustrations are based on discoveries from the tombs of Salamis, pottery figurines of warriors, and chariots and representations on embossed metal bowls.

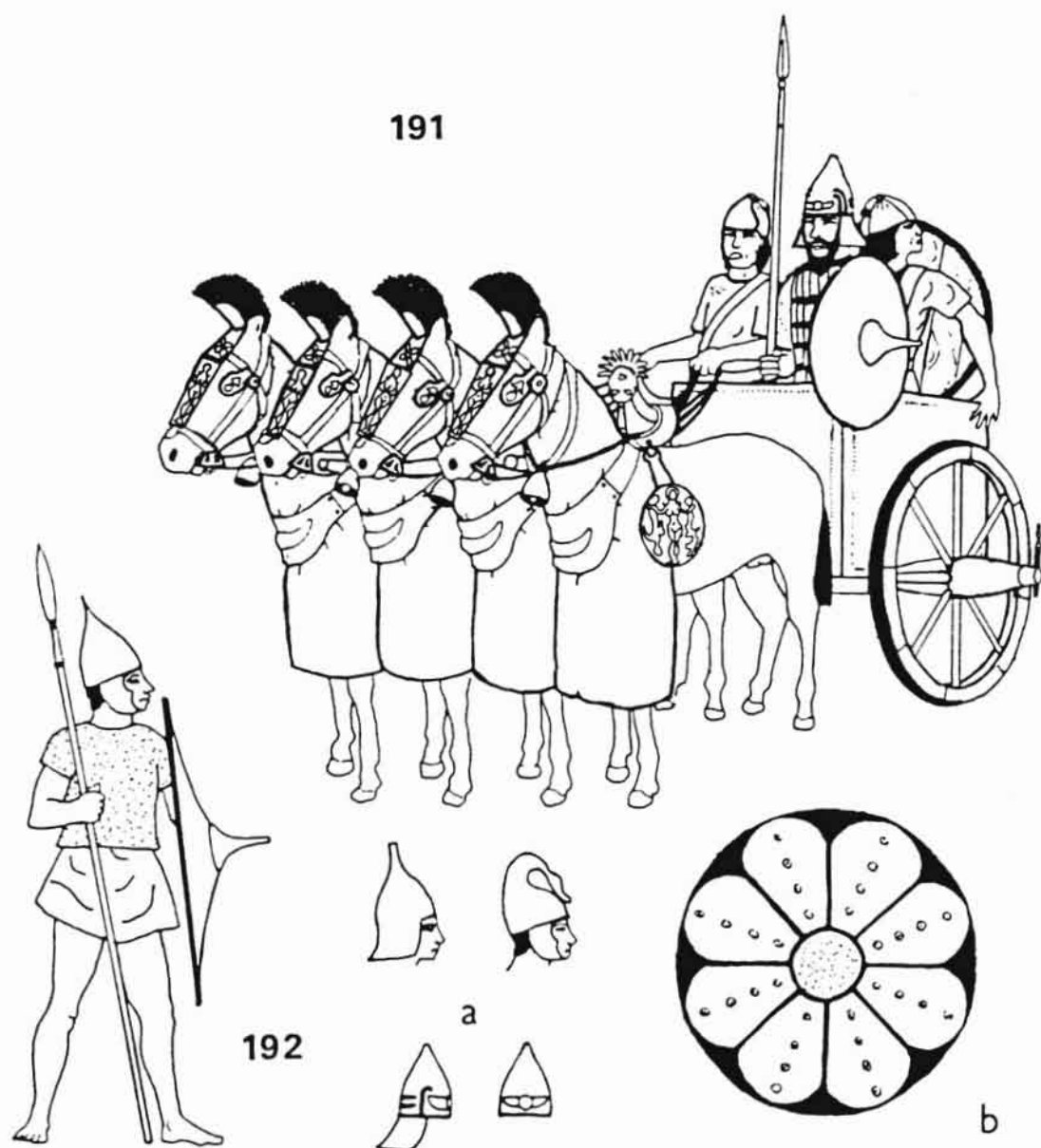
Cypriot chariots generally followed Near-Eastern designs. This chariot is one of the latest types, dating to the 7th century B.C. Earlier types would closely resemble 9th century Neo-Hittite and Assyrian vehicles. From the 8th century B.C. Assyrian influence became stronger, following the conquest of the Phoenician states, (for yet earlier chariots refer to 115). This chariot is based on actual examples excavated at Salamis on Cyprus. The cab is constructed of leather over a wooden framework supporting panels of osier. There was a central partition ending in a bronze looped hand-grip at the rear. The third crewman stood behind the driver and second crewman, holding on to the hand-grip which could also serve as a shield support. In this way the rear of the chariot was protected. From the late 7th century B.C. onwards, the chariot would have two draught-poles, also appearing in the Near East, further restricting the chariot's manoeuvrability. The wheels of the chariot had ten spokes, strengthened by ten iron nails driven through the rim and secured to the axle with large decorated lynch-pins. The two draught-poles were joined by a straight yoke accommodating four horses, and decorated with four bronze 'standards' in a similar manner to a model chariot in the Oxus treasure.

Horse armour comprised an ox-hide 'apron', as shown here, with a metal breast-plate and side pendants. These were decorated with Assyrian-inspired motifs such as a naked figure of Ishtar (a goddess of love and war) standing on, or holding back lion figures. The horses also wore metal frontlets and crests. These trappings were of bronze, or leather covered with sheet gold. One chariot cab was decorated with five lions' heads.

The crew were armed with thrusting-spears and round shields. The headgear worn by two of the crew are 'turbans' of Aramaean style, popular in Cyprus at this time.

Figure 192 is a Cypriot spearman, based on pottery models of warriors and some pictorial representations. Cypriot forces also included archers and cavalry who were similar in appearance but lacked shields.

The shield shown in 192c has a red centre and small red dots on white petals against a black ground as painted on a pottery figure. Other shields could have long, pointed, bronze bosses. Variant helmets are shown in 192a, the lower example originating in Urartu, a major exporter of arms and metalwork.



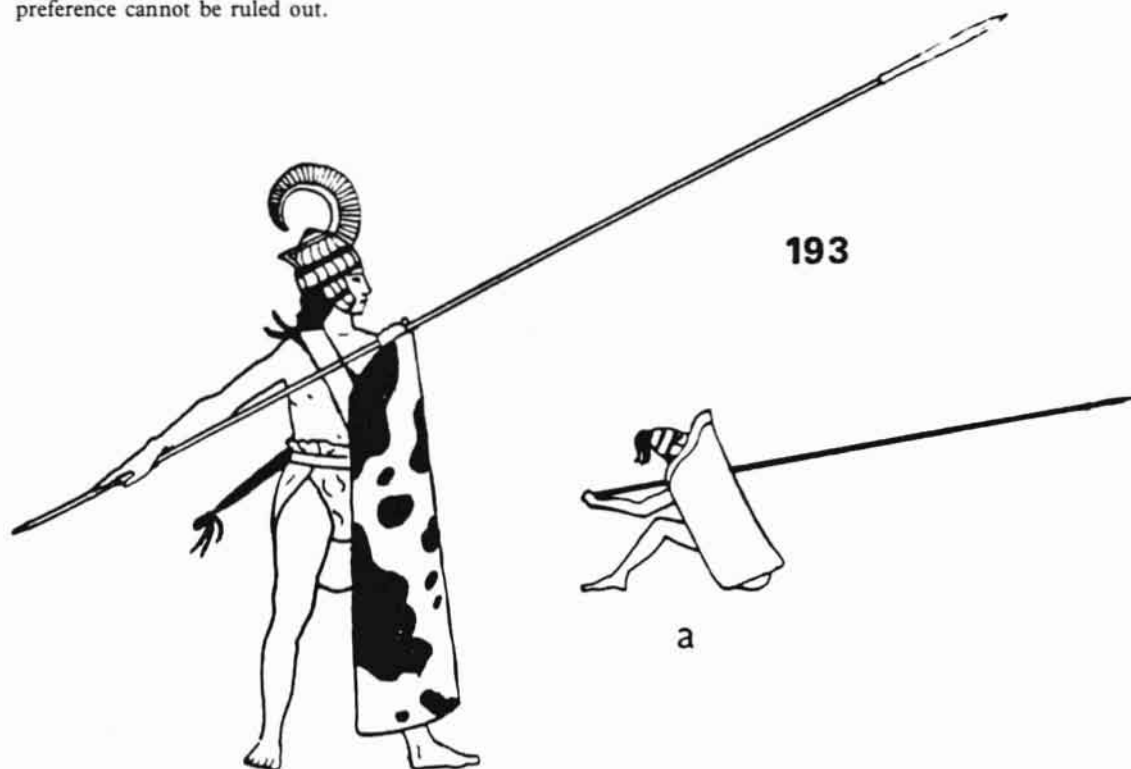
193, 194 & 195. MINOAN AND MYCENAEAN SPEARMEN c. 1600-1300 B.C.

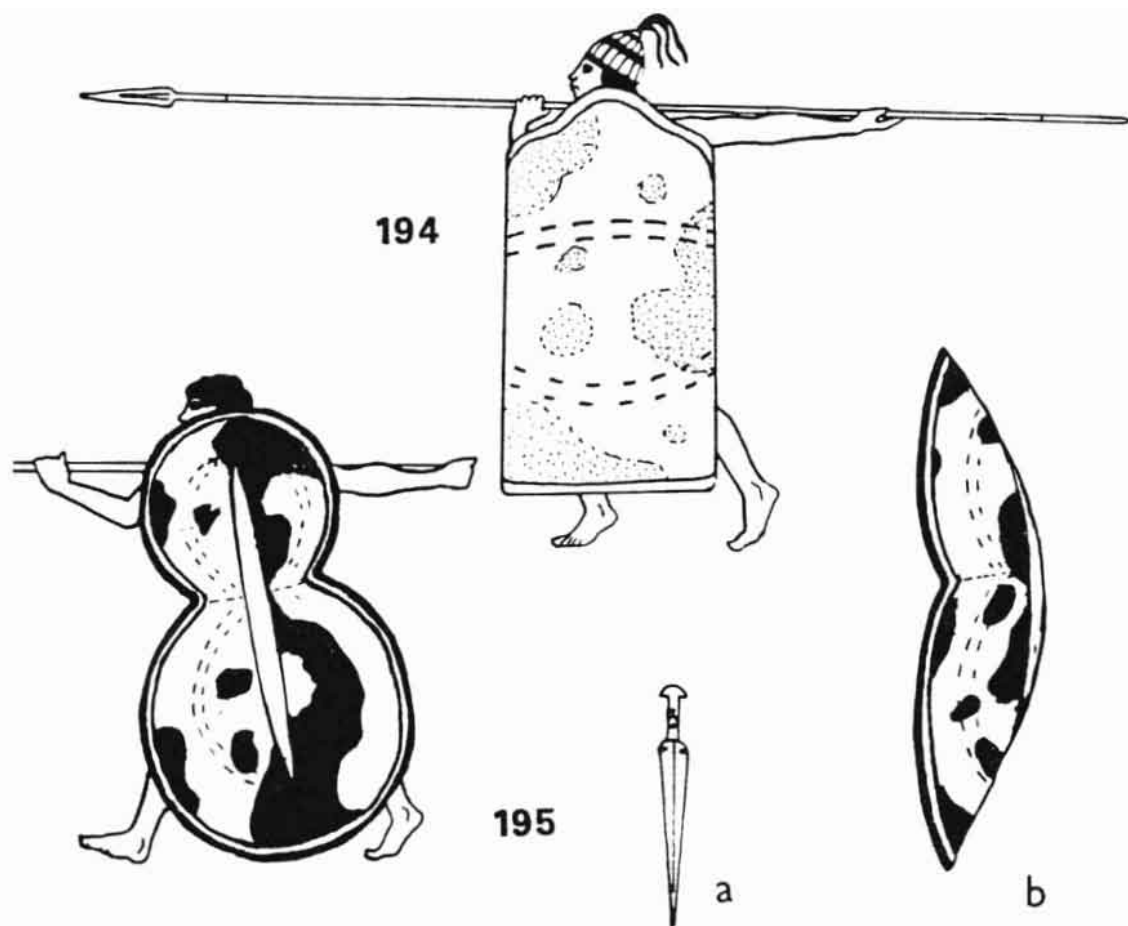
There are many representations of this type of infantry in Aegean art. The principal sources for these figures are a fresco from Thera, a battle-scene on a silver crater and a decorated dagger blade from Mycenae, and various engraved seals.

These spearmen appear to have fought in close formation and were probably drilled. The spear, called *eke-a*, was used for thrusting and was at least 4m long. To achieve maximum effect with this weapon, both hands were used and a large body-shield was hung from the shoulder with a strap. Spears and shields answering to this description are mentioned in the Iliad. 193 holds his spear in a position suitable for advancing into combat, as depicted on the Thera fresco, where a line of spearmen is advancing in this fashion. 193a shows a man who has been beaten to his knees in combat, taken from a gold seal engraving, and demonstrates how the shield provided complete coverage in such a 'receiving' position. 194 and 195 have spears levelled for the charge. Two opposing bodies are shown clashing in this way on the silver crater from Mycenae.

The elaborate boars'-tusk helmets and the possession of swords indicates that these spearmen are people of some wealth and social standing (unless infantry were equipped from palace armouries). The shields render body armour unnecessary. If such troops were to keep rank with shields meeting edge-to-edge, they would achieve efficient protection for all the individual soldiers by acting together as a cohesive body. Such a 'shield-wall' would be particularly effective against missiles. Archers operated from between the ranks and files of the spearmen, seeking the protection of the shields, (200 shows an archer from the same source as 194 operating in this manner). Swords, or *pakana*, were long, narrow and, like all weaponry, bronze. They were better suited for thrusting than slashing. 195a is a Minoan sword.

It would doubtless be difficult to break into a densely packed shield-wall. Attempts to find ways of doing so may have led to the invention of the 'figure-of-eight' shield. This type is carried by 195 and shown in profile in 195b. It is clearly a shield that could be used more offensively than the 'tower-shield' carried by 193 and 194. It is deep and possesses a deflective ability. A ridge of wood or tough leather runs down the centre. The 'waist' might allow greater use of the thrusting-sword in the 'press'. With such a shield the bearer could have a better chance of battering through the ranks of his opponents. When this type appears it is used alongside the tower-shield. Perhaps only a proportion of the formation were equipped with them in order to give a 'biting-edge' to the body, but personal preference cannot be ruled out.





The shields were made of ox-hide, and patterns consisted of black, brown or buff blotches on a white ground. Lines of stitching visible on the front correspond to the attachment of the shoulder-strap and frame on the reverse. The central ridge of the figure-of-eight shield was generally buff, the outer edge of the rim being blue, and the inner edge, yellow.

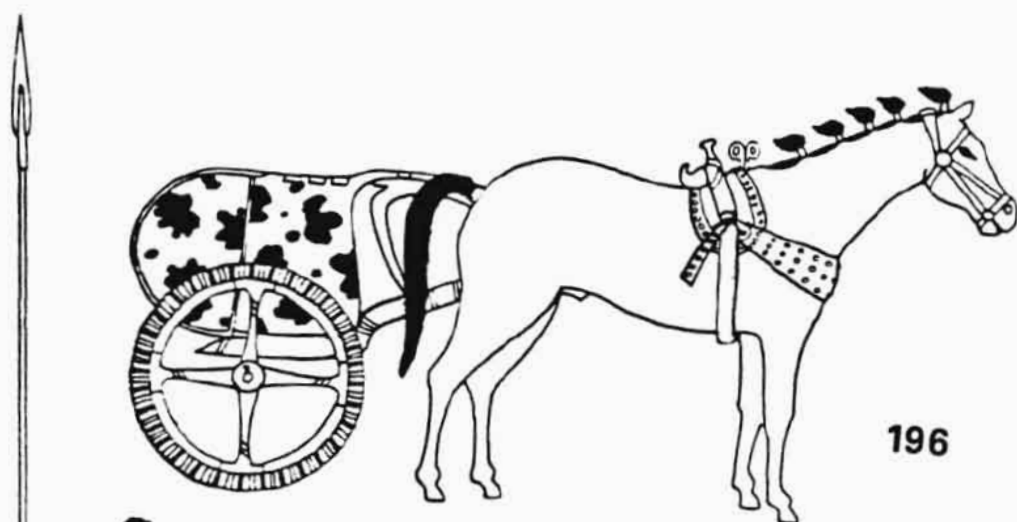
Helmets, *koroto*, were made from slivers of horn cut from boars' tusks and bound to a leather base with leather thongs. The crest of the helmet worn by 193 is possibly also made of horn, alternatively, black or black and white horsehair plumes and crests could be attached.

Kilts could be fringed and elaborately embroidered. Dress sometimes consisted only of a coloured 'cod-piece'.

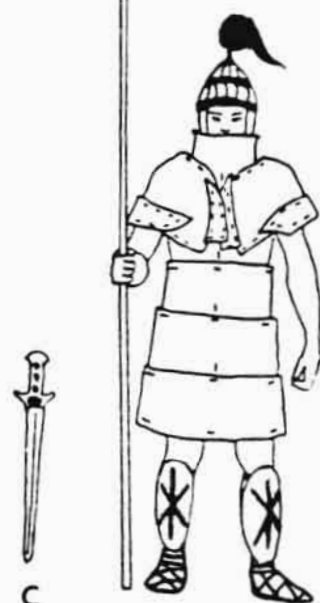
The Aegean peoples were generally tall, slim and had a 'bronzed' complexion. Hair was very dark, wavy and usually worn long. Beards were uncommon, but gold death-masks from the shaft-graves of Mycenae suggest that they could be worn by kings.

196. MINOAN AND EARLY MYCENAEAN CHARIOTRY c. 1550-1250 B.C.

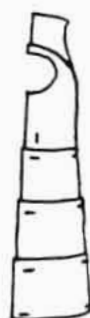
Introduced into the Aegean in the 16th century B.C., the Aegean chariot soon began to differ in terms of detail from the Near-Eastern type. The four-spoked wheels remained standard for a longer period but were made stronger and more robust. The axle was positioned near the rear of the cab, and the draught-pole was strengthened by a second pole joining it horizontally from the yoke to the front of the cab. Both shafts were further strengthened by a wooden support or thongs. It is possible that this second shaft extended backwards within the cab and curved round to join the floor, providing a partition and means of support for the crewmen. These are all developments designed to increase the strength of the vehicle. In Egypt and Canaan the emphasis was on lightness because speed and manoeuvrability were required for a primarily skirmishing role over flat open ground. The Aegean chariot, however, was clearly a more robust vehicle intended to take the strain of close-combat over broken ground.



196



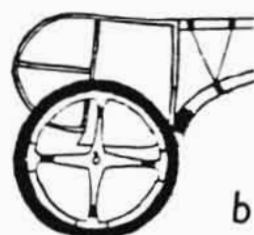
197



d



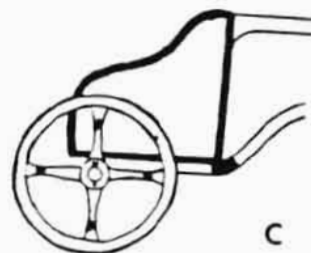
a



b



198



c

Aegean chariot warfare is a much debated subject, the discussion of which might benefit from the appreciation that chariot design underwent significant change within the period c. 1550-1150 B.C. The earliest design was a type that has been called the 'box-chariot', illustrated in 196a. This was in use between 1550 and 1450 B.C. Between 1450 and 1200 B.C. a type called the 'dual-chariot' came into use, both 196 and 196b being examples of this type. Chariot design changed dramatically with the appearance of the so-called 'rail-chariot', in use from about 1250 to 1150 B.C. As the name suggests this was a rather spindly open-sided vehicle shown in 196c, (of which more will be said under 204). This design probably marks the transition from a fighting vehicle to a battlefield transport, a gradual process occurring in some states before others, and perhaps still incomplete at the time of the Trojan War, which might go some way to explaining the confusing accounts in the Iliad.

There are a few representations of chariots with three and four crewmen, which appear to be 'dual-chariots'. In one example the crew carry disc-shaped standards on poles, so these may be 'command' chariots.

The linear B tablets deal with chariotry in great detail, and indicate that chariots were stored dismantled (a practice referred to in the Iliad). The wheels, or *amosi*, had to be fitted to the wheel-less body, or *aramotemena*. The chariot frame, *anamoto*, had to be covered with a hide or fabric cover. Tablets mention red hides and crimson chariots (the term for crimson was *ponikija*, probably the famous Phoenician dye made from shellfish). Frescoes and paintings on pottery show bull-hide patterning and yellow and black chariot cabs. Chariot parts were made in the *amotejonade* (chariot workshop) by an *amoteu* (chariot builder). Wheels and frames were made from elm, willow, yew, boxwood and cypress. Cabs could also be made of basketwork. Special fixtures might require the use of ebony, horn, ivory, bronze, silver and gold. Such materials would not usually be lavished on ordinary line chariots. Less expensive decoration was achieved by painting, as on the wheels of 196. It is clear from the tablets that chariots varied greatly in type, age and condition. Among the comments pertaining to wheels in the tablets we find references to ornate ones bound with silver, or inlaid with ivory. Some have bronze tyres. Others are described as 'old wheels for followers' (which might indicate the existence of charioteers who were not *egeta*, possibly the uncertain *tereta*?) or 'old spindly wheels' and wheels for followers which are 'unfit for service'.

The term for chariot was *iqija*. Another word was *wo-ka*, meaning 'vehicle' and deriving from the same root as our own word. Horses, *i-ko* (hippos), were quite small, of pony size, and were usually black, brown or white. The mane was tied up into tufts. The halter was called *poqewijai*, and could have ivory *opoqo* (cheek-pieces or blinkers) attached. The reins were called *anija*.

Some signs appearing in the tablets are thought to represent bronze ingots, which were commonly shaped like a stretched hide. This might indicate that bronze was being issued for the manufacture of equipment instead of the finished article. However the signs might instead represent trappers for the chariot horses (cf. fig. 14a).

197 & 198. MINOAN AND EARLY MYCENAEAN CHARIOTEERS c. 1550-1250 B.C.

Figure 197 represents the probable appearance of the better-equipped *egeta*, or 'followers' in full battle gear. His armour is based on the famous Dendra panoply. The bronze plates assemble to form front and back 'halves', and it is difficult to establish whether the tablets refer to the two halves or to a pair of corslets associated with each set of chariot gear. The plates were backed with leather or linen, and were loosely fastened by leather thongs to allow some degree of movement. The corslet was called a *torake* (thorax), and the component parts, whether plates or scales, were known as *opawota*. Linear B signs seem to depict corslets of this type in which the neck-guard is clearly discernible. 197d shows a lateral view of one 'half' of a plate corslet. The tablets refer to corslets consisting of 20 or 22 large, and 10 or 12 small, *opawota*. These could be types of plate armour, or scale corslets on the Near-Eastern model (see fig. 15). As these usually required many more scales than this, rows of scales might be intended in the tablets.

The Dendra panoply included lower arm guards, called *qero* in the tablets, where a pair are associated with each corslet (197a). He wears greaves of a type found at Kallithea, the type from Dendra being shown in 197b.

A less well-equipped follower, or a driver, is shown in 198. Such charioteers in quilted white, presumably linen, tunics are shown in a fresco from Mycenae. Such a tunic would also make ideal padded protection to be worn beneath the armour of 197. Tunics such as those described under 202 could also be worn. The greaves are white and appear to be stiffened fabric, probably linen. They appear abundantly in frescoes, even on otherwise lightly-equipped troops.

With the Dendra panoply were found the parts for a boars'-tusk helmet which had bronze cheek-pieces instead of the more usual horn type. Completely bronze helmets are also known. Helmets were called *koroto* and some are described as having 4 *opawota* and 2 cheek-pieces.

Armament for a chariot warrior comprised a long spear, it being to deflect the thrusts of this weapon that armours such as the Dendra panoply were especially devised. An engraved gemstone from Vapheio shows a chariot spearman in action, he uses both hands. The source from which 198 is taken shows short spears or javelins. These could have been alternative armament or later have replaced the long spear. Side-arms comprised a tapering short sword, up to 60cm long, suitable for inserting between the plates of an adversary's armour, (197c).

The appearance of the armour worn by 197 calls to mind medieval tilt-armour, and is clearly designed to deflect thrusts. The protection of the throat and shoulders is particularly emphasised. The armour imposes limitations on manoeuvrability, especially if the wearer was forced to fight dismounted. He would be well advised to follow the instructions attributed in the Iliad to warriors of the old school, such as Nestor, and not break rank and attempt to fight alone, but 'when a man in his own chariot comes within reach of an enemy chariot, he should attempt a spear thrust'.

From the mid 13th century B.C., charioteers began to appear as in 204, which probably indicates a change of tactics.

Followers may have worn special uniforms. Tablets refer to certain white cloaks as being 'suitable for followers'. The tablets also confirm that an Aegean warrior might actually bear the name Achilles or Hector. They also reveal that so could many of his less noble compatriots!

The linear B tablets make no mention of shields in association with charioteers' equipment and there is no real evidence that tower or figure-of-eight shields were ever used by chariotry. The use of round shields by charioteers occurs later on with the introduction of the 'rail' chariot (see 204).

199 & 200. MINOAN AND MYCENAEAN LIGHT TROOPS

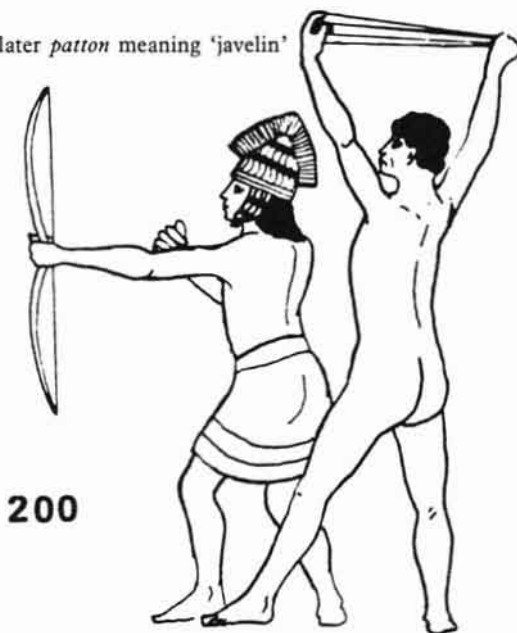
A fresco from Knossos depicts a line of dark-skinned troops dressed and equipped as 199. The two plumes suggest that they might be Libyan auxiliaries from North Africa. The so-called 'siege rhyton' from Mycenae shows a town under attack. It is defended by a few men bearing large rectangular shields and more numerous archers, slingers and stone-throwers. These are completely naked and probably represent the local peasants and townsmen assisting the soldiery. One of these slingers is illustrated in 200. The archer in 200 comes from the silver crater from Mycenae mentioned under 193-195 on which archers like this are shown shooting from among the ranks of the spearmen. He wears an elaborate boars'-tusk helmet with crest.

Archery figures quite prominently in the Iliad, where both sides included contingents of archer specialists. This agrees with the impression given by Aegean art that archery played an important part in warfare. In the Iliad, bows are made of goats' horns, one horn providing each arm of the bow. Arrows were originally tipped with bone or flint, but later tanged bronze types were used.

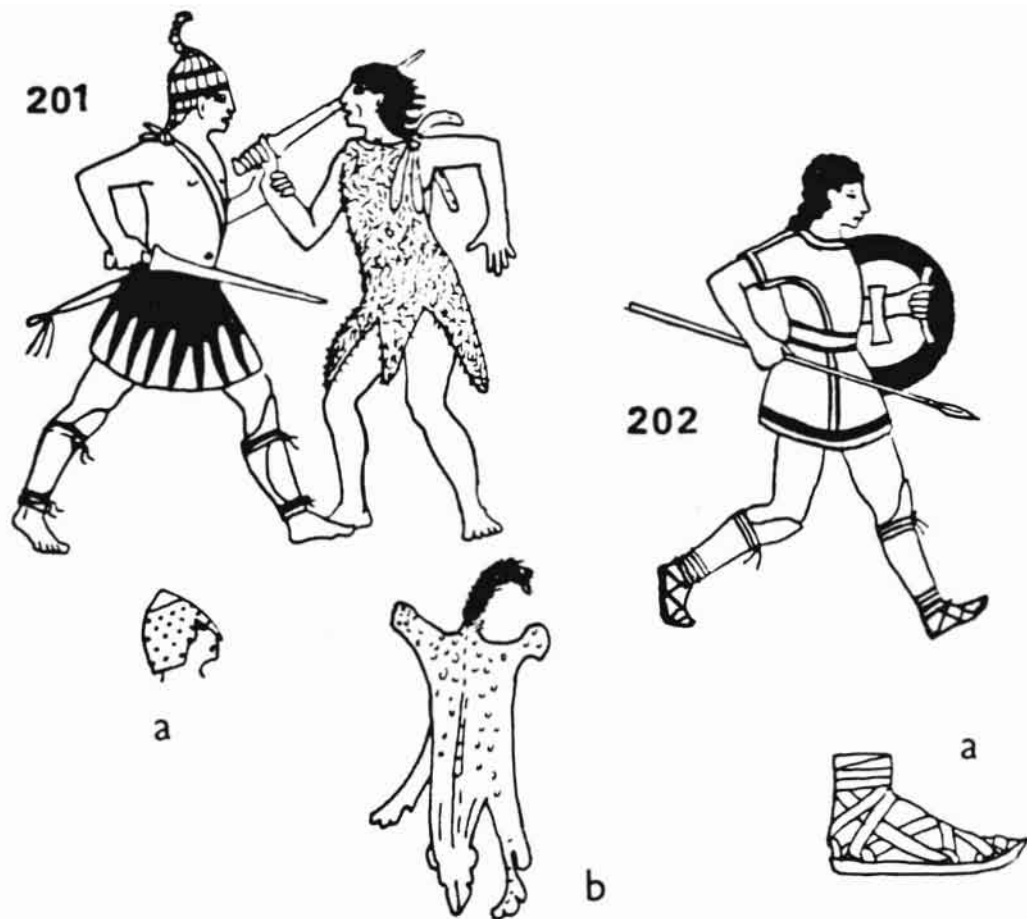
Javelins were most probably called *patatja*, a term ancestral to the later *patton* meaning 'javelin'



199



200



201. MYCENAEAN LIGHT INFANTRYMAN AND OPPONENT

Combat between lightly-equipped Achaean troops and rather barbaric opponents is the subject of a fresco at Pylos. It is a mystery who these barbarians might be, but the *Iliad* records that the father of Polypoetes, (who led a contingent from North-Eastern Greece), once fought against 'shaggy people of the wilds'. Perhaps they were hill tribes from the central Peloponnese or North-Western Greece. They need not have been the aggressors as peoples such as these might be encountered on slaving or plundering raids mounted by the Achaeans. Garments could consist of sheepskin, wolf or lion pelts (201b). The kilt of the Pylian is coloured black and white.

The Pylians bear no shields and fight with short spears or narrow rapier-type swords, the latter comprising the only armament of their adversaries. The Pylians wear boars'-tusk helmets and white textile greaves. Some troops wear the helmet shown in 201a. This is yellow and might represent embossed bronze or studded fabric. It has been suggested that the wearer might be a mercenary from central Europe or the Balkans. There is material evidence indicating the possible presence of these in the Aegean, and there was certainly some interchange of military ideas between the regions, especially concerning sword design and the development of sheet metal armour.

202. MYCENAEAN INFANTRYMAN c. 1300-1250 B.C.

This 'longhaired Achaean' is typical of many troops depicted in frescoes from Mycenae, Pylos and Tiryns. He carries a round shield and short spear and could wear a boars'-tusk helmet. He wears sandals in addition to his greaves. The exact form of this footwear is illustrated by a model foot from Mallia (202a). The great popularity of linen greaves may be because they served the purpose of boots and would be useful protection when fighting, hunting and travelling among the rocky hillsides and scrub of the region.

He wears a white tunic, or *kito*, edged with black bands. Tablets list various items of clothing, including tunics of purple wool, edged cloth, and grey or white cloth. Large woollen cloaks and purple 'double cloaks' are mentioned. Cloaks and tunics could also be of linen. The Tiryns frescoes show green and red tunics.

203



a



a



204



b

203. LATER MYCENAEAN WARRIOR 13TH TO 12TH CENTURY B.C.

Taken from the famous 'warrior vase' from Mycenae, this figure dates to the darkening days of Mycenaean civilisation around 1200 B.C. He could answer to some of the descriptions of warriors in the *Iliad*, with his sheet-bronze cuirass, greaves and almost round shield (like an inverted pelta, later characteristic of the Troad and Dardanelles region). The markings on the inside edge of the shield reveal how the outer layer of hide, possibly even sheet bronze, was attached. He wears a 'bell' cuirass of bronze, a type attested also in central Europe. The helmet could be studded fabric, leather or embossed bronze. The attachment of boars' tusks or cows' horns gives an effect reminiscent of the Sherden. The bronze greaves were possibly worn over the textile type, or even over woollen socks as were later used by the Phrygians, Urartians and Assyrians.

He marches with a few personal rations tied up in a bundle and hanging from his short spear. His principal side-arm would be a long slashing sword, as shown in 203a. This replaces the earlier narrow types and the design may have originated in central Europe.

On the vase, the armour is coloured black, probably representing dark bronze, and the inside of the shield is buff.

204. LATER MYCENAEAN CHARIOTEERS AND HORSEMAN, c. 1250-1100 B.C.

The type of chariot shown here, known as the 'rail-chariot', appeared during the 13th century B.C. and eventually replaced the earlier types. This illustration is based on various depictions of chariotry on pottery, which show chariots consisting of little besides a platform and a rail. The legs of the crew are clearly visible through the open sides. The appearance of the charioteers is similar to the warrior described in 203 and similarly markedly different from the preceding age. It was common for one or both of the warriors to carry round shields and they were armed with short spears or javelins.

This chariot and its crew are most certainly the result of a major change in chariot tactics, if not military organisation in general. It would seem highly probable that these men might dismount to fight more readily than earlier Aegean chariotry, and they answer well to most of the descriptions of chariot fighting contained in the *Iliad*.

These charioteers seem to be wearing linen cuirasses which do not extend over their shoulders. Around their waists they may be wearing bronze belts. They wear woollen socks beneath bronze greaves, or only linen greaves. They have simple crested helmets. There are drawings of 'dual'-chariots with three-and four-man crews dressed in a similar manner to these, accompanied by standards like that in 204b.

204a is a horseman, also known from drawings on pottery. There are a few such representations dating from the late 15th century B.C. to around 1200 B.C., but they probably became increasingly common beyond this date. One example shows a man carrying what appears to be a round shield. This figure wears a bronze helmet, a 'bell-cuirass' and possibly greaves.

The eventual breakdown of the Aegean palace economies (and therefore the elaborate organisation required to maintain the chariotry) may have hastened the development of cavalry. Literacy was lost and only returned centuries later with a different script (derived from Phoenicia), so the palace regulation of military forces probably ceased. It is possible that the horseman was simply a warrior not wealthy enough to possess a chariot and so uses a horse to transport him to the battlefield. Alternatively, the dramatic change in chariot tactics might be partly due to the appearance of horsemen who could fulfil the majority of their roles more economically.

205. HARAPPAN PRINCE

The dress of this figure is taken from a fragment of sculpture which is usually regarded as representing a prince or a priest. His dress is quite possibly purely civilian or religious in function. It is illustrated here to portray a high ranking personage. The rank and file probably wore a plain white cotton dhoti. Small domed pieces of copper have been found which might have been fixed to a textile base as a sort of armour. The decoration of this man's robe may be a stylised imitation of animal skin or similar sewn-on objects. A rectangular shield is possibly represented on one Indus seal.



The metal weapons were made of copper or poor-quality bronze and are rather weak in design. They include tanged spearheads which are broad, leaf-shaped and flat. They would need to be inserted into the shaft to provide a strengthening central rib. Axe blades were also flat; socketed types being known, but rare (205b). A type of short sword is shown in 205a. Three types of stone macehead existed, round, pear-shaped and most commonly, lentoid.

The under-developed close-combat weapons stand in contrast to the missile weapons. The barbed arrowheads were always copper. Sling projectiles came in three types; a small round or slightly oval type, and two much heavier types of baked clay weighing 375g and 750g. Some large pottery balls found at the base of defences could have been hand thrown missiles. As sling ammunition is associated with the defences of towns, this may be the weapon of the rank and file militia in times of emergency.

206. EGYPTIAN SIEGE DEVICE

Siege methods during the Old and Middle Kingdoms included the use of battering-rams and wheeled scaling-ladders (shown in a tomb at Saqqara and demonstrating that the wheel was known before the Hyksos). A device depicted in tombs of the 12th Dynasty at Beni-Hasan was a long-shafted weapon with, presumably, a hefty metal point, which required three men to wield. This was operated directly beneath the battlements, the crew being protected by a large pavise. It was either used to prise apart the mud bricks of the rampart or to keep points of the wall clear of defenders to enable assault by scaling-ladder. While the assault was in progress, archers suppressed the defenders with shooting.

In the New Kingdom, cities were assaulted through breaches in the walls, probably created by rams or mining. Elite units usually led the assault. Other methods were to assault the walls with scaling-ladders or destroy the gates with axes or fire. On one occasion an assault party was smuggled into Joppa hidden in baskets. Reliefs of the siege of Dapur in Canaan at the Ramesseum show troops approaching the walls under cover of pent-houses. These were fabric stretched over a wooden frame and concealed a small assault party from missiles.

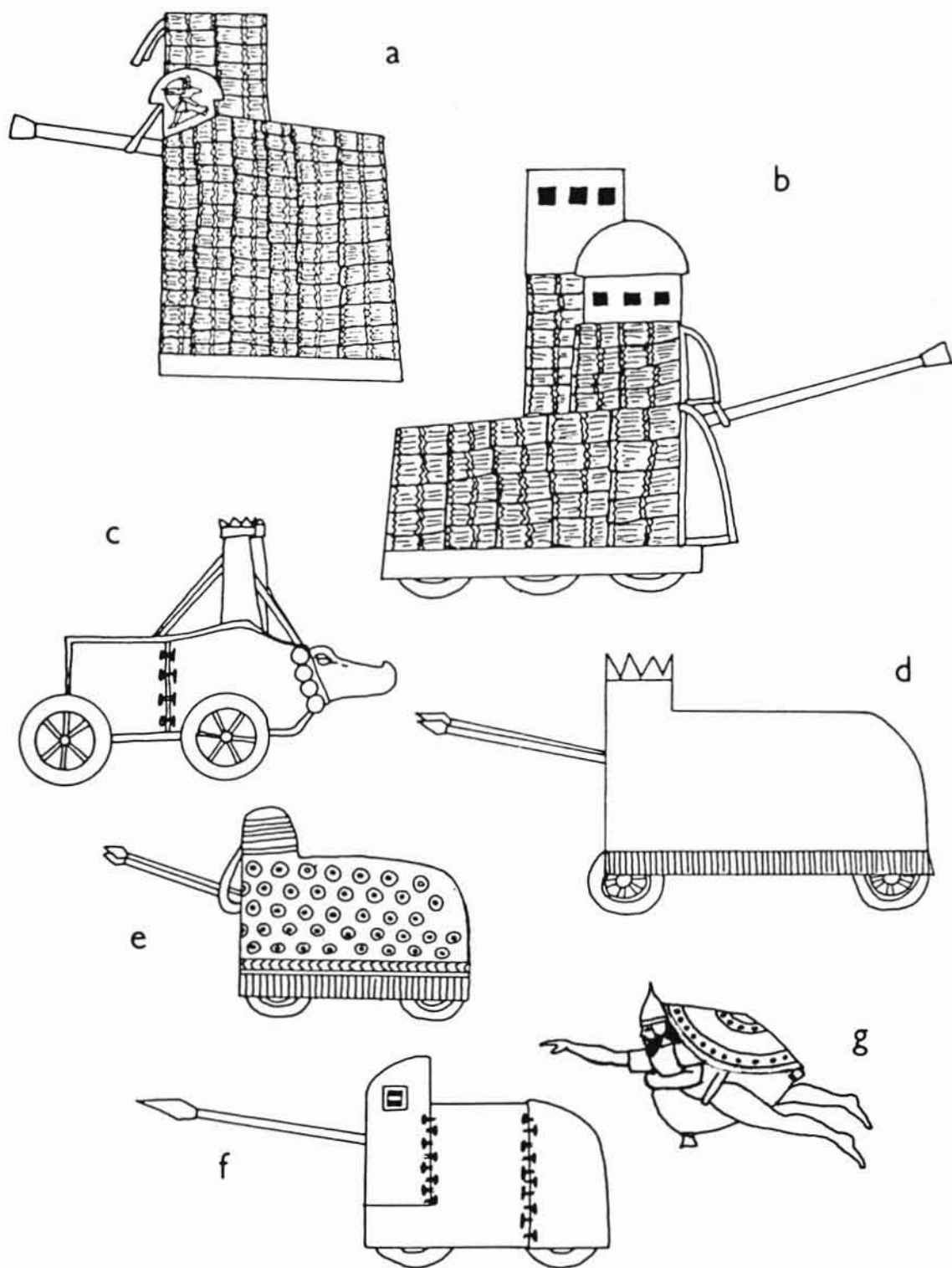
In later periods, siege techniques became more sophisticated. The Piye stela mentions siege-towers, battering-rams and siege-ramps. Egyptian cities contained vast temple enclosures which were used as fortresses in times of emergency. Memphis was captured by Piye by means of amphibious assault through the harbour.

206



207. ASSYRIAN SIEGE ENGINES

Fixed or mobile siege towers equipped with a massive iron-shod ram first appear in reliefs during the reign of Ashurnasirpal. There is textual evidence that such devices existed in some form a few centuries before in the Near East. These towers appear to have been constructed at the siege since they utilise large numbers of infantry shields and sometimes chariot wheels. Two of Ashurnasirpal's engines are shown in 207a and b.



By the reign of Tiglath-Pileser III, the ram had developed into a lighter and more-mobile weapon, (207c-f are engines from the reigns of Tiglath-Pileser to Sennacherib). The ram body could be made of three sections, front, middle and rear, most probably of wicker, covered in leather and sometimes secured by two double rows of toggles (207f, dating to Sennacherib). The front was usually taller than the rest forming a small turret with a window. The ram was usually moved on four wheels, but some early types show six.

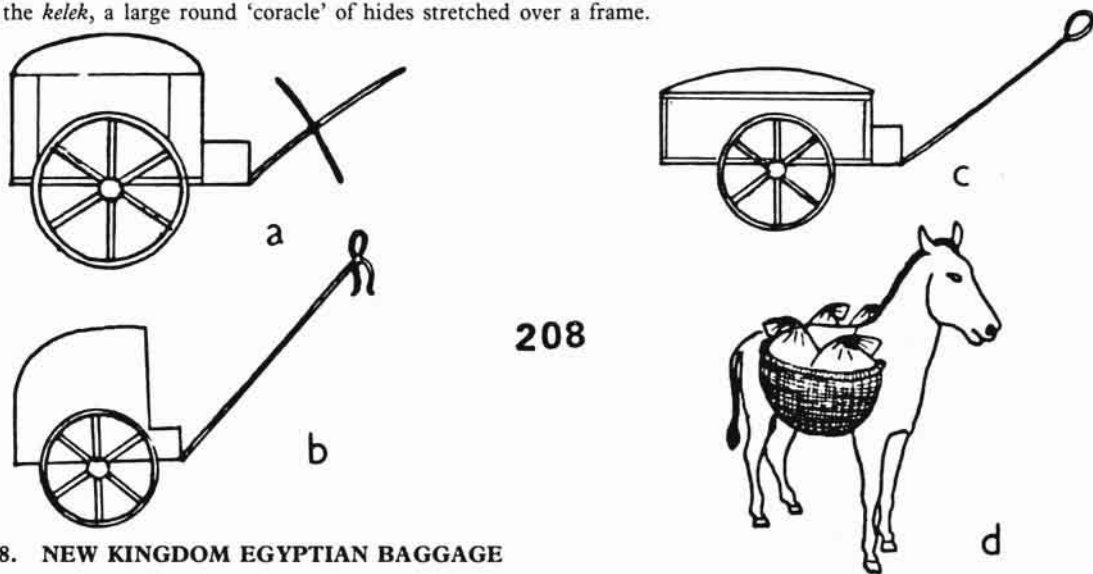
The ram itself was long and thin, protruding from high up the front of the machine, ending in a large 'spearhead'. This type of ram, known to the classical world as a 'drill' was inserted between the courses of the wall's brickwork and moved from side to side, pulling out the bricks and weakening the wall.

Often two such 'drills' are present (207d and e), which together with a long hanging loop that sometimes occurs, gives the impression that the ram was intended to imitate an elephant, (herds of which still existed in the wilderness regions on the banks of the Euphrates, and were hunted by Assyrian kings). Indeed, other siege engines certainly attempt to imitate other animals, such as 207c and another shown on the bronze gates of Balawat, dating to Shalmaneser III. In these cases, the 'snout' of the beast was probably shod in metal to provide a ram. These rams would be used against the gates.

The size of the crew and how the ram was worked is not readily apparent. One archer and a man with a water ladle are shown in the 'drill' types, and perhaps four men were required to work the 'drill'. These together with a couple of archers, an officer and a 'ladler', comprised the crew.

The body of the 'drill' engine was about 5-8m long and was pushed up to the wall by the crew inside, with perhaps some outside help. The ram itself was probably some 5m in length. A text of Sennacherib refers to siege engines as 'great wall flies', perhaps this is a reference to the rather light rams shown in 207d-f.

Rivers were crossed by means of inflated animal skins, either supporting individual swimming soldiers (207g), or joined together to support rafts. Horses were swum across, while unharnessed chariots were transported by means of the *kelek*, a large round 'coracle' of hides stretched over a frame.



208. NEW KINGDOM EGYPTIAN BAGGAGE

In enemy territory Egyptian armies constructed marching camps surrounded by a palisade of shields. The entrances were closed by large grid-like gates and guarded by sentries with staves. Chariots and ox-carts (208 a-c) were parked in special areas, and the Pharaoh's large pre-fabricated tent was set up in its own enclosure in the centre of the camp. It included a throne dais, shrine and folding campaign furniture. 208d is a pack-donkey.

The soldiers pitched small, rectangular-plan, round-topped tents which probably served a small group of men. Equipment and packs were stacked at the entrance of the tent.

Camp followers included artisans to repair chariots, boys who carried out menial tasks for the soldiers and no doubt numerous women. In fact some female members of Ramesses' household had to be instructed to keep clear of the fighting by the vizier, when the Amun camp was attacked at Kadesh.

209. ASSYRIAN CAMP AND BAGGAGE

Assyrian camps depicted in reliefs, are shown to be fortified. They were oval in shape with towers at regular intervals. These camps first appeared during the reign of Ashurnasirpal, when they were divided into quarters by cross-roads. By the time of Sennacherib there is only one road running through the centre of the camp. It is probable that these camps were not built every night, but as a secure base for a whole campaign. The camp was probably built of mud-brick for the lower part of the wall, with wooden upper-works and battlements. It was possibly surrounded by a ditch.

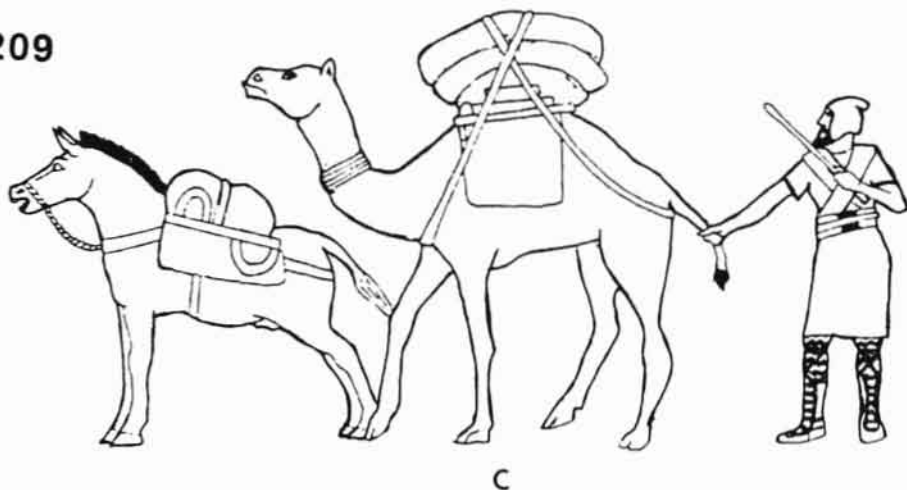
The reliefs show the interior of the camp taken up by two types of tent, and baggage animals and equipment. The ordinary soldiers' and officers' tents resemble those of the Bedouin (modern and ancient), being open fronted to catch the cool breezes, the side walls kept up by guy ropes, helped by a three-branched internal support, cut from a tree. This type is shown in 209a. The scene inside is shown in great detail in the reliefs. Jars and pots hang from the tent-poles, often also a double-yoke for a cart, and a donkey pannier.

Officers had proper beds and more equipment than do the 'other-ranks', who make do with mattresses only. In both cases each native Assyrian is shown with one or more attendants (grooms, kitchen servants), who, in the case of 'other ranks' at least, would be a soldier of a lower grade (an auxiliary or levy archer).

The king's tent is different from the others. It is mostly hidden by a canvas screen around it, but the visible top shows it to have had an open section in the roof for light (209b).

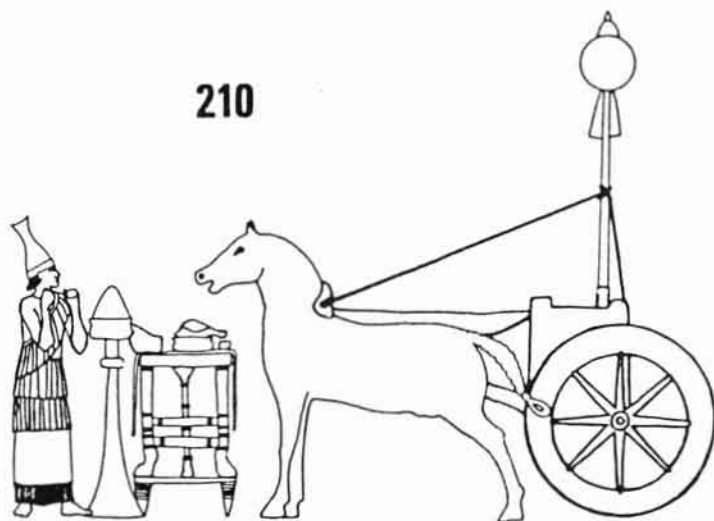


209



It is possible that one tent was provided for each five-or ten-man section in the Royal Army, the lower status levies having to make-do without.

The tents and equipment were carried on the backs of mules, donkeys and camels, attended by drivers (209c). The bulkiest items were loaded onto carts.



210. ASSYRIAN SACRED CHARIOT

Like many Near-Eastern armies, the Assyrians carried images of their gods into battle in the form of military standards. These provided a rallying point and source of encouragement for the troops, and the practice is attested for the Mitanni, Kassites, Egyptians, Hittites, Sumerians and Akkadians as well as Assyrians. It was also common practice to mount such standards in chariots of their own and use them to lead sections of the army on the march. The Assyrians regarded their chief god, Ashur, as a protector of their army and the state, and believed that their military conquests were carried out according to his will. The Mitanni and Hittites thought in a similar manner and also regarded war between opposing countries as a kind of lawsuit, in which the gods were the judges. This chariot is one of a pair of religious chariots depicted in a relief dating to the reign of Sennacherib. It is shown unharnessed in the camp, attended by priests. The disc mounted upon the pole bore the image of the god. Only the rare and valuable white horses were considered suitable for the service of the gods. Assyrian texts sometimes mention a great number of gods accompanying the army including; Ashur, Sin, Shamash, Adad, Bel, Nabu, Ishtar of Nineveh, Queen of Kidmuki, Ishtar of Arbela, Ninurta, Ugal and Nusku. Perhaps these refer to unit standards as well, or standards accompanying wings and larger formations within the army. Armies were often accompanied by priests who considered the omens before campaigns and battles were commenced.

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In addition much useful information on military matters may be found in the revised edition of the *Cambridge Ancient History* I-IV, 3rd ed., Cambridge, 1970-.

CHRONOLOGICAL CHART

